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PSYCHOLOGICAL ABSTRACTS

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GENERAL

2596. Baumgarten, F. Aus der polnischen psychologischen und psychotechnischen Literatur. (Polish psychological and psychotechnical literature.) *Zsch. f. angew. Psychol.*, 1931, 38, 136-145.—The political independence which Poland has enjoyed since the end of the war has affected the people favorably in their endeavor to contribute proportionately to scientific advance. Psychology reveals this very plainly. The beginnings of a self-conscious Polish psychology are associated with the name of Mme. Joteyko. It was she who edited the first monographs under the title *Prace Psychologiczne* from 1922 to 1928 and who founded in 1926 the first journal, *Polskie Archiwum Psychologii*. Representative studies which have appeared in the *Archiwum* are: (1) Marie Grzegorzewska, "On the psychic structure of tactful reading in the blind." This paper reports the success in learning to read by whole words before individual letters are taught. (2) M. Dybowski, "The dependence of execution upon indices of the will-process." Six voluntary types were determined from the experience of 36 persons with 20 daily activities. (3) Stefan Blachowski, "Investigations on the development of memory and calculating ability." An analysis of the arithmetical wizard Kriegler led to the conclusion that number-memory can be vastly extended through judicious practice. (4) Stefan Szuman, "Observations on the phenomenon of syncretic perception in the child." Two children of 6-8 months were observed to take a proffered carrot to the mouth, while a carrot lying on a plate was untouched; instead the entire plate was seized, although the carrot was obviously wanted. The theory of figure-ground is employed to account for the behavior. (5) Jadwiga Zawirska, "Children's explanations of natural phenomena." The Muchow experimental series was presented to 242 Warsaw children, most of whose responses were in what Piaget would call the primitive stage. Eleven-year-old village boys are still at the animistic level. In 1930 there also appeared a new psychological quarterly edited by Blachowski of Posen under the title *Kwartalnik Psychologiczny*, which aims to bridge the language isolation of the country by means of articles in the major scientific tongues. Among other papers, it contains one by Stefan Szuman, "On the visions seen with closed eyes during mescaline dosage." The author experimented upon himself and some artists, making drawings of the pictures both during and after the intoxicated state. The pictures have an ornamental geometrical character and are related both to hypnagogic and schizophrenic phenomena.

In the same periodical is a report by Anna Gruszecka on "Falsification of reality in old age." 25 subjects aged 65-85 were tested by the *Aussage* method with pictures presenting an unusual situation, such as a bird with a hat. There is a pronounced tendency to report in accordance with old-established associations, e.g., to see a man under the hat rather than a bird. Polish psychotechnology received its first impetus in 1925 through the establishment of a variety of governmental bureaus in the ministries, but the quarterly *Psychotechnika* dates only from 1927. Typical of its contents are: (1) S. M. Studencki, "A comparative study of the endowment of the youth of Poland and those of other countries." This study takes its start from the well-advertised low standing of the Polish contingent in the Army Alpha. Using the Dunajewski tests of logical thinking, the author found Polish children superior to Belgian and Russian; in memory and some measures of technical comprehension they excel the Germans. The inferior scientific achievement of the Poles is accounted for, not on the basis of inferior intellect, but because of deficient dispositions (on the basis of a sorting test he finds only 8% of them capable of careful work). (2) J. Wojciechowski, "Results of dynamographic investigations." In this the author pleads for the use of the dynamograph as a means of measuring fatigue. Further evidences of Polish activity in this field are the existence of municipal testing laboratories in Lodz and Lublin, the assembling of the first all-Polish psychotechnical conference in January, 1930, the exhibits in industrial museums, etc. Although original investigations have not as yet appeared, the hope is justified that in another decade Polish psychologists will exert a fructifying influence upon the science of western Europe.—G. W. Hartmann (Berlin).

2597. Benjamins, C. E. Le professeur Dr. H. Zwaardemaker Czn. (Professor H. Zwaardemaker.) *Acta oto-laryngol.*, 1931, 15, 1-6.—This is a biographical sketch of the scientific work of Zwaardemaker. His contributions to science fall into five divisions: physiology of the sense of smell, phonetics, acoustics, bio-radioactivity, and finally his *lunettes à entendre* (electrical lights which magnify sounds for the deaf).—M. B. Mitchell (Yale).

2598. Brigham, C. C. Proceedings of the Thirty-eighth Annual Meeting of the American Psychological Association, Incorporated, Iowa City, Iowa, December 29, 30, 31, 1930. Report of the Secretary. *Psychol. Bull.*, 1931, 28, 181-250.—R. R. Willoughby (Clark).

2599. Conklin, E. S. A volume-year check list of psychological and allied journals. *Univ. Oregon Publ., Psychol. Ser.*, 1931, 2, 105-128.—R. R. Willoughby (Clark).
2600. Davis, R. C., & Geldard, F. A. An oscillator and synchronous motor for obtaining exact variable speeds. *Science*, 1931, 73, 369-370.—R. R. Willoughby (Clark).
2601. D'Esplugues, P. M. Crisi de la idea filosòfica de personalitat. (Crisis in the philosophical concept of personality.) *Criterion*, 1930, 6, 219-234.—J. W. Nagge (Chicago).
2602. Fialko, N. Hegel's views on mental derangement. *J. Abn. & Soc. Psychol.*, 1930, 25, 241-267.—It is Hegel's contention that there can be no true science, no systematization of all known facts, unless their acquisition and their classification have been accomplished in conformity with the precepts of the logical method of dialectics. True science, therefore, is conceived as integrated knowledge; and the integration must be a dialectical process. Considering that such true science has never existed in fact, this fundamental principle of Hegel may be doubted. It is also possible to prove that it is a false principle; for it is evident that those factors which have prevented any system of knowledge from becoming a true science have never ceased to exist and to exercise their influence. On the contrary, it may be said that this arresting influence is steadily progressing and increasing in volume. The fallacy of the so-called iron law of dialectical development can be proven in a variety of ways. But if the possibility and the necessity of a true science in Hegel's sense are accepted, it is then obligatory that the constitution of its parts should be adjusted to the entire system in accordance with the fundamental principles of Hegel's philosophy.—C. H. Johnson (Boston Psychopathic Hospital).
2603. Hall, E. W. Bernard Bosanquet on the psychical and the logical idea. *Monist*, 1931, 41, 91-116.—Contemporary philosophy emphasizes direct experience, admits indeterminism and holds that irrelevance is fundamentally and irreducibly real. The problem of the relationship between relevance and irrelevance as a fundamental characteristic of experience remains unsolved, and the present paper is concerned with the attempted solution by a representative of the speculative philosophy of a preceding generation. Bosanquet's endeavors to separate psychology and logic and afterwards to unite them constitute a suggestive failure to solve the wider problem of the relation between relevance and irrelevance. In the first phase of his thought Bosanquet sharply separates logic and psychology, meanings and psychical events. The latter are unstable, subjective, particular, and essentially unreal. The former, involving identical reference, are permanent, objective, and universal. Logic really abolishes psychology. This is no solution and is inconsistent with absolute idealism. In his second phase Bosanquet strives to unite logic and psychology and to establish a relation between meanings and psychical processes (1) by claiming that the logical idea arises out of the psychical by a process of abstracting and fixing; (2) by saying that the mind uses psychical states as means of grasping logical meanings; (3) by the doctrine of a developing mind evolving from the psychical to the logical stage; (4) by the doctrine that psychical and logical are both abstract aspects of every experience. The first solution is incomprehensible, the second ambiguous in its employment of the word *use*, while all are inconsistent with the principles of absolute idealism.—C. M. Diserens (Cincinnati).
2604. Holt, E. B. Animal drive and the learning process, an essay toward radical empiricism. Vol. 1. New York: Holt, 1931. Pp. 264.—The author deplores the loss of definite referents for many of the current psychobiological terms, and his book constitutes an attempt to supply them. Developmental growth and learning are one continuous process. Electrical gradients determine neurobiotaxic establishment of sensory-motor connections, which is the earliest form of learning, and a basis for association and the conditioned reflex. The reflex circle (Bok) by which a muscular contraction tends to perpetuate itself through the stimulation of proprioceptors, passes into a serial reflex by irradiation of over-crowded nerve impulses blocked at the synapse (inhibition of the contracting muscle and facilitation of the antagonist). The reflex circle is the basis of adience (tendency to maintain the stimulated condition); reciprocal innervation (algebraic summation of impulses at the synapse) is the basis for abience (tendency to avoid over-stimulation). Abience is identical with persistent avoidance reactions to endogenous and exogenous stimulation. From this basic mechanism is built up the incalculable variety of behavior patterns which characterize the integrated organism.—C. V. Hudgins (Clark).
2605. Klemm, O., Hunter, W. S., & others. Bibliographie der ausländischen Literatur des Jahres 1929 über Psychologie, ihre Grenzgebiete und Hilfswissenschaften. (Bibliography of the foreign literature of the year 1929 on psychology, its boundary fields and auxiliary sciences.) *Arch. f. d. ges. Psychol.*, 1931, 79, 167-270; 453-538.—K. F. Muenzinger (Colorado).
2606. Lacarrere, J. L. Fotocampimetro autorregistrator. (Automatic instrument for measuring the visual field.) *Rev. oto-neur.-oftal.*, 1931, 6, 3-11.—A description of an instrument for the exploration of the visual field.—J. W. Nagge (Chicago).
2607. Menge, E. J. v.K. Psychological reactions of biologists: a cross-section of present day biological thought. *J. Soc. Psychol.*, 1931, 2, 102-114.—A miscellany of opinions of biologists, chiefly about what is biology's most important contribution to modern life and about the merits of vitalism and mechanism.—E. B. Newman (Bryn Mawr).
2608. Miles, W. R. Predicting for psychology. In Trends in graduate work: A program commemo-

rating the thirtieth anniversary of the founding of the graduate college of the State University of Iowa. *Univ. Iowa Stud.: Ser. Aims & Prog. Res.*, 1931, No. 33, 105-108.—It is predicted that the next thirty years will show a great advance in the understanding of personality. "There will be less emphasis on schools of psychological thought and more effort to bring psychology as a body of methods and knowledge into a cooperative working arrangement with other fields of endeavor in all the humanitarian and social sciences." Longitudinal studies in the psychology of human development are seriously needed. Popular interest in psychology has been aroused; the adult of today is more teachable in scientific matters than was the ordinary man of 1900. This state of social attention is full of promise. "The study of vocational aptitude is just at the threshold and is certain to aid one way or another in the complicated problems of human adjustment."—B. Wellman (Iowa).

2609. Miner, J. B. The twenty-fifth anniversary of the Southern Society for Philosophy and Psychology. *Psychol. Bull.*, 1931, 28, 1-14.—Historical and statistical notes regarding the Society.—J. F. Dashiel (North Carolina).

2610. Moss, F. A. *Psychology for nurses*. Boston: Houghton Mifflin, 1931. Pp. 273. \$2.50.—The first part of the book is called "Psychology and its Place in Nursing." In it the author gives some of the chapters of general psychology with special applications to the sick room, and chapters from abnormal psychology on mental disorders and delinquency. Special attention is given to the effect of bodily conditions, drugs, and external conditions on behavior. The second part of the book is called "Individual Differences." In it chapters are devoted to differences due to race, family, training, age, and sex. The final chapter gives an analysis of the different normal and abnormal emotional outlets.—M. B. Mitchell (Yale).

2611. Nenclares, F. C. Notas para un ensayo sobre Edmundo Hüsserl. (Notes on Edmund Hüsserl.) *Criterion*, 1930, 6, 241-265.—The author discusses various aspects of the phenomenology of Hüsserl. For Hüsserl the individual does not ultimately exist: knowledge of the truth is a meta-psychological fact. He refuses to entertain the idea that psychology must give the philosophical explanation of logic. The two fundamental forms of the empirical where this latter comes into sensibility are space and time. Truth is permanency in objectivity. Knowledge of things lies not in the subject. Hüsserl breaks with tradition as completely as did Descartes. There is much of the Brentano tradition in Hüsserl, since he lies in the Brentano descent. Hüsserl sees psychology only as phenomena. The phenomenological thesis is designated by the title "descriptive psychology." The main interest thus consists in characterizing phenomena descriptively in order not to compromise them metaphysically, reducing them as far as possible to data of the transcendental world. Hüsserl proposes that a repre-

sentation is not that which is represented, but the act of representing it, and that a thought, an emotion, an appetite, really exist; a color, sound, or temperature exist only as phenomena or intentionally.—J. W. Nagge (Chicago).

2612. Schniermann, A. L. Second anniversary of the death of Bekhterev. *J. Gen. Psychol.*, 1930, 4, 391.—The second anniversary of the death of Vladimir M. Bekhterev (1857-1927), founder of human reflexology, organizer of various institutions, was commemorated at the Bekhterev Reflexological State Institute for Brain Researches, Leningrad, U. S. S. R., Dec. 24, 1929. One plate.—H. Cason (Wisconsin).

2613. Stefanini, A. Microbaroscopio registratore per ricerche psicométriche. (Recording micro-baroscope for psychometric investigations.) *Arch. ital. di psicol.*, 1931, 8, 290-297.—The author describes two apparatuses permitting the observation or photographing of the slightest changes in the pressure exerted with a finger or pencil upon an elastic membrane, which may serve to reveal the effect of an emotive stimulus upon an individual or the degree of his inhibitory power.—R. E. Schwarz (U. S. V. B. Hospital, Oteen, N. C.).

2614. [Various.] Graduate theses: Including schedule of dissertations of approved candidates for advanced degrees with major and minor subjects. *Univ. Iowa Stud.: Ser. Aims & Prog. Res.*, 1931, N. S. No. 203. Pp. 61.—For the approved candidates for the degree of doctor of philosophy of the 2,334 students registered in the Graduate College of the University of Iowa during the current year, the following topics in psychology are listed: An empirical comparison of techniques used in sound localization; pitch, time and intensity variants in artistic singing; some intonational and temporal aspects of string instrument playing; relation between intensity and frequency in artistic singing; temporal aspects of piano playing; an experimental analysis of ritards in piano performance; an analytical study of eye movements in reading; the nature of eye movements in reading with techniques for their improvement; an analysis of the speech abilities and needs of university freshmen; a photographic study of the stammerer's voice and speech; an action current study of neurologic and psychiatric cases; chronaxie studies of stammerers and psychiatric cases; the effect of stammering upon the development of personality; the effect of emotional and fatigue factors upon action current frequencies in reflex and voluntary activity; the dysintegration of breathing and eye movements of stammerers in silent reading; some neuro-physiological sources of action current frequencies; a comparative study of conduction rates in reflex arcs (frog, chicken, rat, guinea pig, dog, ape, man); an experimental study of pace in track; the emotional responses of children to the motion picture situation; the rôle played in the causation of maladjustment by lack of or faulty instruction regarding auto-erotism; a study of the significance of personality traits in classifying

elementary school children on the basis of IQ; psycho-physical capacities and abilities of artistically gifted and non-gifted children; basic factors of aesthetic value in costume design; the factor of complexity in the motor rhythmic performance of children; a study of fear in children of preschool age; the sense of humor in young children; a study of the companionships of preschool children; the development of bladder control in young children; an evaluation of certain play equipments in terms of the development of motor behavior of preschool children; the age and progress factors in test norms; remedial measures in specific musical skills; a remedial program for the inefficient silent reader in the ninth grade of the high school; an experimental study of certain techniques for testing word meaning; common factors in reading and speech disabilities; an analysis of errors of comprehension in reading; a critical study of errors in first-year algebra; valid testing and diagnosis in the mechanics of ninth-grade English composition; an experimental analysis of situations involving the laws of learning; a critical appraisal of the experimental data on the psychology of the secondary school subjects; the vocabulary of children's letters; a critical study of children's choices in poetry; an investigation of the effect of musical setting upon memorization and interest in poetry; techniques of measuring results in parent education; teacher supply and demand in Iowa; John Locke's contribution to the psychology of romanticism; Charles James Fox: a study of an eighteenth century orator. The following topics are listed for approved candidates for the degrees of master of arts or master of science: A study of the information factor in race prejudice; a study of individual and personality differences of preschool children with reference to artistic performance; a psycho-physical appraisal of talent in graphic art; the relation of inflection tests to voice flexibility in speech; an experimental study of the pre-school child's responses to rhythm in graphic form; the aesthetic effectiveness of advertising copy as determined by eye-movement photography; a motion picture analysis of the techniques of hammer throwing; the dream content of mentally diseased persons and its relationship to recent impressions; the personal interview as a technique in student personnel service: a survey, analysis, proposed methods; a study of self-dependence in children of preschool age; a study of display of anger; a psycho-physical appraisal of factors involved in art talent at pre-school age; the hearing of artistic deviations from fixed pitch and intensity; an experimental investigation of the pre-school child's sensitivity to compositional unity; configurational aspects of taehistoscopic observation; an experimental study of growth in self-dependence in children of preschool age; an experimental study of the influence of toy and social situations on the preschool child's compliance with requests; the preschool child's sensitivity to color harmony; a personnel study of teachers in training at the University of Iowa; a consideration of possible factors influencing or indicating the success of the State

University of Iowa debate; a study of the objectives of physical education for college men from the standpoint of student opinion—analysis; critical analysis of results of a general science test in Iowa high schools; analysis of instructional and drill units in advanced arithmetic tests; the grade placement of text book instruction on the fundamental punctuation and capitalization skill; an analysis of development procedure in Franck's quintet in F Minor; mastery of punctuation usages as related to the rules; the relation of the spontaneous use of play materials to gain in motor control of two- and three-year-old children; remedial drills for pupil difficulties in algebra; corrective exercises for cases with organic disorders of articulation and phonation; survey of literature in Iowa high schools; the relation between class subject and class average in attainment; a perpetual inventory of the learning process in arithmetic grades 2-8; the similarity in content and procedure between high school and college courses in American History; a comparison of the curriculum of private high schools and public high schools; status of psychology in Iowa high schools; appraisal of a course of study in spelling; the use of musical play materials by preschool children; reading comprehension as affected by the translation of elementary historical material into the spoken and written vocabulary of children; the research utility of statistical techniques; technique for mass individualized instruction; an empirical study of a technique for assigning letter grades to objective test scores; a study of the multiple choice type of spelling test; an analytical study of content of preschool children's drawings; adjustment of ninth-grade pupils from a non-junior high school system in a junior high school system; the errors incident to a year's work in algebra; an interpretation of geometrical errors of 27 pupils on 22 tests; report of a year's growth in the spelling of one hundred junior high school people; an observation-interview score card for measuring parental attitudes and practices in child rearing; the value of certain remedial procedures in teaching whole numbers in arithmetic; a study of the moral judgments of reformatory inmates; a comparison of the method of repetition of response and of repetition of stimuli in overcoming articulatory difficulties; textbook validation of a series of objective exercises in the field of high school physics; comparison of certain types of test in English mechanics; a survey of beginning ninth-grade ability in written English expression to determine specific teaching needs; the effect of vocabulary in reading geography textbooks; the improvement of reading in rural schools through teachers in service; selection and validation of objective test materials common to certain text books in American government; a historical-critical study of the American speeches of Richard Cobden; a comparison of certain methods of testing spelling ability; science curricula for the fourth grade; case studies of the reading disabilities of high school juniors and seniors; diagnostic tests to determine and remedial work to develop skills in mathematics prerequisite to college physics

as presented in "Physics—a text book for college," by Stewart; effectiveness of still pictures in the teaching of general science; factors affecting teachers' salaries in Iowa; a comparative study of the development of graphic and plastic art ability in young children through two different methods of art instruction; a comparison of the program of studies in negro and white high schools of Oklahoma and Missouri; an analysis of visual aids in "Problems in American Democracy" text books; the measurement of text book illustration in 5th grade arithmetic; an analytical study of the free language expression of certain first grade children; the relation between teacher's professional training in a subject and pupil achievement; a critical analysis of the bonding progress of certain Illinois high schools; objective supervision of 9th-year mathematics; Hawthorne's use of light and shade; the modification of teaching procedures for superior students in a course in principles of speech; some critical factors influencing the subsequent achievement of students on probation for deficiency in scholarship; a study of the materials dealing with child development found in home libraries; the relation of mastery of certain punctuation rules to pupil usage; techniques of text book selection, with special reference to physics; the validation of a personality schedule for junior high schools; a job analysis of teaching in the one room rural school; permanence of learning in algebra; legal and administrative provisions on teachers certification; persistence and types of errors made on compass survey tests in arithmetic; fourth-grade punctuation usages in relation to courses in study; the value of rules for teaching plural nouns and singular verbs in spelling; words suitable to be taught in spelling in the primary grades; an evaluation of drill lessons in the addition and subtraction combination; analysis of the problems of Duff's college physics text for the specific algebraic, geometric, higher arithmetic, and trigonometric skills involved in the solutions; etiology of N pre-seventh grade pupils' status in percentage; a text book validation of objective exercises for junior high school civics; the grade norms and standards for the arithmetic neatness scale; diagnostic tests of some mathematical skills needed in high school physics; a critical study of pupil accomplishment in denominate numbers; development of the meaning vocabulary of certain elementary grade pupils; analysis of three high school texts of hygiene and an attempt at evaluation of certain of their concepts in terms of interest difficulty measured in grade levels; the interrelation of abilities in the addition and subtraction of fractions and mixed numbers; dates, men, and facts which teachers should emphasize in a course of history of European backgrounds, as revealed by an analytical study of history text books; a survey of the items of school expenditures; accounting system for smaller districts of South Dakota; the arithmetic of social experiences of third grade children; an evaluation of the Thurstone personality schedule with respect to certain aspects of high school guidance; a study of the married teacher

problem; an analysis of occupational opportunities in Burlington, Iowa; a survey of youthful occupations as an aid to a guidance program in the Sioux City school system; chronic errors in plane geometry; relationships between school board, superintendent, and architect in building planning; the significance of certain attitudes of secondary school pupils; difficulty in sixth grade percentage during learning; a study of certain psychological factors affecting the consumption of food; psychological factors in feeding children; influence of vitamin B on anorexia in children; a study of certain psychological factors affecting food sales.—B. Wellman (Iowa).

2615. Wentscher, E. Gedanken zum Ichproblem. (Thoughts on the problem of the self.) *Zsch. f. Religionspsychol.*, 1930, No. 4, 293-323.—After a discussion of the development of the problem there follows a discussion of an investigation of the data of our consciousness of self, a criticism of English empiricism, objections to natural science, comparative considerations, pathological splitting of consciousness, the direction of the self in the organic field, the unity of the mental subject, psychic causality, the self in modern philosophy, in functional psychology, in Freud, in Ebbinghaus, the self and the will, the mental substance, metaphysical views. The author agrees with Lotze; we must, nevertheless, bear in mind that there is no substantiality in the sense of unchangeableness attaching to the mental subject, for we can assume for this subject a development conformable to law.—A. Römer (Leipzig).

[See also abstracts 2626, 2743, 2962.]

SENSATION AND PERCEPTION

2616. Aikins, H. A. A banked race-track illusion. *Science*, 1931, 73, 366-367.—A motocyclist on his first run around the banked track felt himself at first on his side, but a few seconds after reaching full speed seemed suddenly to regain the vertical, the environment becoming tipped.—R. R. Willoughby (Clark).

2617. Johannsen, D. E. A quantitative study of binocular color vision. *J. Gen. Psychol.*, 1930, 4, 282-308.—The investigation was limited primarily to a quantitative study of the physical conditions which determine the phenomena occurring when different colors are observed with the two eyes simultaneously. The apparatus used was particularly designed for study of the influence of the factors of hue and intensity in determining whether mixture or rivalry results. The results may be summarized as follows: "The color of the member of the pair which has the longer wave-length dominates the binocular field more than that of the shorter. Those pairs of colors, the members of which are separated by the smallest number of wave-lengths or j.n.d.'s, mix the most readily and completely. The nearer together the two colors in wave-length, the fewer the fluctuations. The color having the greater intensity has the greater dominating power. The less the absolute brightness

of the colors, the more readily they mix. The more alike in brightness the colors, the more readily they mix. With adaptation, the shorter wave-lengths tend to lose more in brightness than the longer. When the fixation points are in focus, the positive dominance difference tends to be increased. Regular and fairly rapid blinking tends to bring back the weaker color, though individual differences here are large. When the eye is previously adapted to the color having the shorter wave-length of a pair, the dominance difference is increased in a positive direction; adaptation to the longer wave-length tends to decrease the size of the dominance difference." —*H. Cason* (Wisconsin).

2618. Katz, S. H., & Talbert, E. J. Intensities of odors and irritating effects of warning agents for inflammable and poisonous gases. *U. S. Bur. Mines; Tech. Paper No. 480.* Pp. 37.—Using a specially constructed air-flow odorimeter which could deliver concentrations as low as one part in 10^{12} parts of air, the authors have found the concentrations of 55 different substances which give sensations of five degrees of intensity. Tables giving concentrations for each of the five degrees are given, as well as tables showing the concentrations required for nose and eye irritation. The sensory effects of various concentrations were found to approximate Weber's law.—*C. M. Louttit* (Ohio).

2619. Kellogg, W. W. An experimental evaluation of equality judgments in psychophysics. *Arch. of Psychol.*, 1930, No. 112. Pp. 77.—The primary objective of the present experiments is to demonstrate empirically the effect of admitting or excluding a category of equal judgments (in the method of constant stimuli) upon the performance of the same observers. Both visual and auditory stimuli were used. Five observers judging seven fixed pairs of auditory intensities and five judging seven fixed pairs of visual intensities made 43,680 judgments according to the method of constant stimuli. Half of the judgments were classified plus and minus, the other half plus, minus or equal. After each group of 42 judgments the observers gave retrospective estimates of their confidence. The comparisons from Urban's weight-lifting experiments and from the present experiments with auditory intensities show on the average very close correspondence between precision measures of the two-category techniques. The observers on the whole preferred the two-category method of judging for the reason that they found it in general less confusing and easier to make a decision between two possibilities than to decide between three. A bibliography and tables are appended.—*E. M. Achilles* (Columbia).

2620. Kreezer, G. Luminous appearances. *J. Gen. Psychol.*, 1930, 4, 247-281.—The object of the study was to determine the phenomenological characters of a representative group of luminous appearances. The luminous appearances were characterized by a volumic character of the visual object and a brightness of the visual object greater than that of its immediate surroundings. This volumic character

differed both from the bulky colors as defined by Katz and Bühler and from the solid impression of objects. Bulky colors, while transparent, had definite front and back limits. Solid objects seemed to occupy a definite portion of tridimensional space even when opaque. The luminous appearance was visually penetrable and seemed to occupy an extent in depth without definite front or back limits. The luminous appearances observed were of three types. The first was characterized by homogeneous brightness, the second by a light-dark integration with a greater brightness localized within the depths of the visual object, and the third by a light-dark integration with the light and dark interposed throughout the entire extent of the visual object.—*H. Cason* (Wisconsin).

2621. Renshaw, S. The errors of cutaneous localization and the effect of practice on the localizing movement in children and adults. *J. Genet. Psychol.*, 1930, 38, 223-238.—7 adults and 4 children about 10 years old were given punctiform stimulation on areas on back of hand and volar forearm; and the magnitude and direction of errors in their localizing movements were measured. Large practice effects appeared for both ages, especially the children. The children showed markedly greater accuracy of localization throughout. Significant age differences of predominant directions of errors were also noted. A later comparison was made between 2 adults and 2 twelve-year-olds in localizing by the tactal-kinesthetic and by a purely visual-verbal method. The boys localized more accurately by the former method but the adults were superior by the latter. A theory is proposed that tactal-kinesthetic guidance of localizing in childhood becomes replaced by visual guidance in adults.—*J. F. Dashiell* (North Carolina).

2622. Renshaw, S., Wherry, R. J., & Newlin, J. C. Cutaneous localization in congenitally blind versus seeing children and adults. *J. Genet. Psychol.*, 1930, 38, 239-248.—The theory advanced in a preceding paper (see V: 2621) that the cutaneous-kinesthetic control of localizing in childhood becomes replaced by distance-receptive (visual) control in adult years, was given special test by comparing the localizing abilities in blind and seeing subjects of the two ages when only the tactal-kinesthetic control was permitted. It was found that by this method seeing children were superior to blind children and to seeing adults, but blind adults were superior to seeing adults and to blind children—which results are in line with the theory in question.—*J. F. Dashiell* (North Carolina).

2623. Striegler, B. Die Abhängigkeit des simultanen Helligkeitskontrastes von der Zeitdauer der Induktion. (The dependence of simultaneous brightness contrast on the duration of induction.) *Arch. f. d. ges. Psychol.*, 1931, 79, 273-324.—By a series of ingenious experiments the author shows that the degree of negative brightness contrast remains constant for periods of induction varying from 60 sigma to 3 seconds. Similarly, variations in the

time of induction from 60 sigma to 4 seconds do not affect the degree of positive brightness contrast. Some fluctuations appear in the tables and graphs but these are apparently considered to be within the range of experimental error.—R. H. Waters (Arkansas).

2624. Taylor, C. D. Visual perception versus visual plus kinaesthetic perception in judging colored weights. *J. Gen. Psychol.*, 1930, 4, 229-246.—The subjects used both the "looks" and the "hefting" procedures with six 2½-inch cubes weighing 60 grams each and covered respectively with black, blue, red, green, yellow, and white paper. Both the method of paired comparisons and the order of merit method were employed. By the method of paired comparisons and the "looks" procedure the colors ranked according to apparent heaviness stood in the order Bk, R, B, G, Y, and W. When colored objects, identical in shape and size, were looked at and not touched, their apparent weight was determined by and stood in perfect inverse relation to, the increasing luminosity of the colors employed. The specific results were in part a function of the method employed.—H. Cason (Wisconsin).

2625. Wellek, A. Zur Geschichte und Kritik der Synästhesie-Forschung. (History and critique of the research on synesthesia.) *Arch. f. d. ges. Psychol.*, 1931, 79, 325-384.—An historical presentation of the chief types and theories of synesthesia. A comprehensive bibliography is given.—R. H. Waters (Arkansas).

[See also abstracts 2606, 2642.]

FEELING AND EMOTION

2626. Capone-Braga, G. La teoria della natura negativa del piacere nei dialoghi di Platone. (The theory of the negative nature of pleasure in the dialogues of Plato.) *Convivium*, 1929, 1, 580-587.—The dialogues of Plato which are taken into consideration are the *Phaedo*, the *Republic*, and the *Philebus*. The philosophers who dislike enjoyment and maintain the negative nature of pleasure are Platonists leaning toward Pythagorean doctrines, a fact which Grote has already pointed out. Plato is pessimistic only in regard to the earthly life. He attaches a certain value to intellectual pleasures, in which the affective element is very weak. These pages are useful to those who wish to study the history of the psychology of thought.—V. D'Agostino (Turin).

2627. Carlisle, C. L. The rôle of affect in psychotic behavior. *U. S. Vet. Bur. Med. Bull.*, 1931, 7, 202-208.—Affect is always the motivating force which, with ideation, determines all personality trends and individualistic behavior.—C. M. Louttit (Ohio).

2628. Caster, J. E. Emotional reactions to strong stimuli. *J. Gen. Psychol.*, 1930, 4, 131-153.—The use of various strong stimuli resulted in all cases in

a reduction in skin resistance. Under the conditions of the experiment the pulse wave immediately diminished in amplitude and then increased above normal for several seconds after the shock and shot stimuli. Pulse rate increased in most cases to the two stronger stimuli. The duration of the total respiratory cycle reached a maximum at the third cycle following the shock and shot stimuli. Some of the indices of emotional reactions which were employed, such as the mean deviation of pulse amplitude and the mean deviation of depth of respiration, compare favorably with those ordinarily used in investigating emotions.—H. Cason (Wisconsin).

2629. Denser, C. H. Significance of effects of various psychic stimuli. *U. S. Vet. Bur. Med. Bull.*, 1931, 7, 230-231.—Emotion-arousing stimuli may be valuable in diagnosis.—C. M. Louttit (Ohio).

2630. D'Esplugues, P. M. L'origen del pudor. *Criterion*, 1930, 6, 382-393.—A review of d'Enrique Casas Gaspar's book, *El origen del pudor*, in which the reviewer agrees with and enlarges upon the author's theory that shame in man is a result of the sin of Adam and Eve. Psychologists have not taken into consideration the power—peculiar to man—of sinning. Shame lessens man's likeness to the lower animals. The universal attempt of scientific investigators to extinguish the spirit is deplored.—S. H. Remington (Worcester, Mass.).

2631. Gemelli, A. Emozioni e sentimenti. Ricerche ed osservazioni preliminare alla costruzione di una teoria. (Emotions and sentiments. Preliminary studies and observations for a theory.) *Riv. di fil. neoscolas.*, 1930, 22, 31-53.—(Soc. Sci. Abst. III: 6368).

2632. Grossart, F. Gefühl und Strebung. Grundlinien einer seelischen Gefühlslehre. (Feeling and striving. Outlines of a psychical theory of feeling.) *Arch. f. d. ges. Psychol.*, 1931, 79, 385-452.—This is the first of three or four papers by the author on the same topic. The chief tenet of his theory is that feeling, which is closely related to conation, is not an ultimate psychical element, but is founded in and always refers to a more fundamental datum, striving, *Strebung*. Feeling is unanalyzable introspectively because a different *Strebung* is then aroused which inhibits the first. Feeling is of double significance in mental life: it is the conscious counterpart of the *Strebung* and gives subjective evidence of the fact that the individual is experiencing such a *Strebung* and also informs him of the nature of the *Strebung*. Pleasantness and unpleasantness are the two basic forms which feeling may take and all other forms are reducible to these. There is no causal relationship between feeling and physiological or bodily accompaniments. They are simply the objective, as feeling is the subjective, manifestation of the *Strebung*.—R. H. Waters (Arkansas).

2633. Haase, K. Zur Psychologie und Pädagogik der Scham. (The psychology and pedagogy of shame.) *Vjsch. f. wiss. Päd.*, 1930, 6, 415-434.—A. Römer (Leipzig).

2634. Mira, E. Exploración de la afectividad. (Survey of emotion.) *Rev. méd. de Barcelona*, 1930, 14, 222-250.—The author discusses the various theories of emotion and concludes that they have progressed little since Aristotle. He summarizes some of the more important work done on emotion. There is a bibliography of 138 titles.—J. W. Nagge (Chicago).

[See also abstracts 2638, 2788, 2853.]

ATTENTION, MEMORY AND THOUGHT

2635. Chaisson, A. F. An alternative approach to the mathematical study of learning curves. *J. Gen. Psychol.*, 1930, 4, 352-359.—Experimental data are given in support of T. B. Robertson's view that the time relations of central nervous phenomena are governed by processes taking place in the brain which are autocatalytic in nature. The autocatalytic equation accurately expressed a typical learning curve in which proficiency was plotted against time. The same equation represented the relation between length of task and learning time for nonsense material.—H. Cason (Wisconsin).

2636. Dunkelberger, G. F., & Rumberger, E. K. An experimental study in perceptual insight. *J. Gen. Psychol.*, 1930, 4, 385-389.—A comparison between trial-and-error and insight learning, the material being two sets of blocks and a base upon which the blocks could be built exactly to reach two horizontal bars. The subjects' form-life and image-life seemed to be directed mainly through the medium of trial and error.—H. Cason (Wisconsin).

2637. Hevner, K. An empirical study of three psychophysical methods. *J. Gen. Psychol.*, 1930, 4, 191-212.—The scale values of 20 specimens of handwriting were compared, from data obtained by (1) the paired comparison method, (2) the order of merit method, and (3) the method of equal appearing intervals. For each method the judgments of the handwriting were obtained from the same 370 subjects. The scale of excellence in handwriting is the same whether the data are obtained by methods (1) or (2). The scales constructed by methods (1) or (2) seem to be superior to the scale constructed by method (3).—H. Cason (Wisconsin).

2638. Koch, H. L. The influence of some affective factors upon recall. *J. Gen. Psychol.*, 1930, 4, 171-190.—The memory of 76 students for the percentage grades which they had received on 10 quizzes was tested after an interval of five weeks. Shortly after each quiz each student graded his emotional reaction to his mark on a 5-point scale. Pleasing grades were recalled relatively more frequently than displeasing ones. Pleasant and unpleasant grades were remembered better than the more indifferent ones.—H. Cason (Wisconsin).

2639. McGeoch, J. A., & Oberschelp, V. J. The influence of length of problem and of transfer upon rational learning and its retention. *J. Gen. Psychol.*, 1930, 4, 154-170.—Three Peterson rational learning

problems were learned by 24 college girls and relearned after a week. Rational learning problems of 12 and 18 letters were disproportionately more difficult to learn than 6-letter problems. Rational learning solutions were retained better than mazes or nonsense syllables.—H. Cason (Wisconsin).

2640. Ogden, R. M. The Gestalt psychology of learning. *J. Genet. Psychol.*, 1930, 38, 280-287.—The contribution of Gestalt psychology to the problem of learning is radically different from the machine-theory of association, and it should replace the latter in the methods of instruction in our introductory courses of education.—J. F. Dashiell (North Carolina).

2641. Piéron, H. L'attention. (Attention.) *J. de psychol.*, 1931, 28, 5-84.—After reviewing the pertinent literature, the author comes to the conclusion that attention may be considered an expression of the functional unity of the coordination of behavior. Particularly noticeable is liberation of energy in the direction of the predominant activity. The different levels of attention are related, according to the author, to neural complexity, and to dynamogenic and inhibitory mechanisms. Bibliography of 157 titles.—N. L. Munn (Pittsburgh).

2642. Stoy, E. G. A preliminary study of ocular attitudes in thinking of spatial relations. *J. Gen. Psychol.*, 1930, 4, 379-385.—The mean average largest horizontal eye-movement and the mean average frequency of horizontal eye-movement were greater when spatial problems were solved than when non-spatial problems were solved. Little evidence was found that eye-movement was correlated with ability when success was measured by ability to answer problems correctly or to answer them quickly. Some evidence was found that eye-movement was indicative of ability to deal with spatial concepts when the latter was measured by instructors' judgments.—H. Cason (Wisconsin).

[See also abstracts 2660, 2827, 2888, 2910.]

NERVOUS SYSTEM

2643. Gerard, R. W. Nerve conduction in relation to nerve structure. *Quar. Rev. Biol.*, 1931, 6, 59-83.—The present status of knowledge on this topic is reviewed under the following topics: action potential, characteristics of nerve activity, nerve impulse, neurofibrils and fiber types, rôle of myelin, properties of the reflex arc, physiological mechanisms of the synapse and extra-reflex effects. Attention is given to the functional significance of the structure of the nerve and to interpretation in chemical terms. Bibliography 148 titles.—O. W. Richards (Yale).

[See also abstracts 2663, 2669.]

MOTOR PHENOMENA AND ACTION

2644. Costa, E. Ricerche sperimentali sul lavoro mentale puro. (Experimental researches into pure mental work.) *Arch. ital. di psicol.*, 1931, 8, 269-

289.—A criticism of De Sanctis' method of eliminating the bodily factors from the curve of mental work, based on a series of experiments which constitute a new method of studying pure mental work. From these experiments it follows that pure mental work, as such, does not produce fatigue, hence does not imply any expenditure of energy, and is, therefore, not work in the proper sense.—R. E. Schwarz (U. S. V. B. Hospital, Oteen, N. C.).

2845. DeSilva, H. R. A case of a boy possessing an automatic directional orientation. *Science*, 1931, 73, 393-394.—The subject is twelve years old and above average in intelligence. Tests indicate that the function is dependent on correct initial visual orientation, which is then maintained indefinitely without conscious attention. There is a history of verbal substitution of the cardinal compass points for the more usual right and left in instructions given by the mother.—R. R. Willoughby (Clark).

2846. Diserens, G. M., & Vaughn, J. The experimental psychology of motivation. *Psychol. Bull.*, 1931, 28, 15-65.—A review of 233 titles, including studies of individual incentives (food, sex, water, etc.) and their comparisons, especially in animal behavior; and reward-punishment, attitudes, suggestion and other social motives, and their comparisons, in human behavior. Some generalized laws of motivation are suggested.—J. F. Dashiell (North Carolina).

2847. Fenn, W. O. A cinematographic study of sprinters. *Scient. Mo.*, 1931, 32, 346-354.—An analysis of the external and internal resistances encountered in running and of the energy sources available for overcoming them.—J. F. Dashiell (North Carolina).

2848. Freeman, G. L. Changes in tonus during completed and interrupted mental work. *J. Gen. Psychol.*, 1930, 4, 309-334.—"Mental work involves an initial increase in muscular tension which decreases as the performance progresses towards completion. Experiments were conducted on 10 subjects and with tasks which utilized (a) a continuous unitary operation, (b) a discontinuous unitary operation, and (c) several alternative operations. Other experiments studied the effect of interruption on the tonus accompaniments of mental work. Twenty tasks (10 mental and 10 mental-muscular) were given to 10 subjects. Half of these tasks were interrupted one minute after they were begun. About 98% of the interrupted tasks were either continued during interruptive disturbance or resumed one minute after the interruption began. A comparison of the tonus change during equivalent periods of interrupted and uninterrupted mental work showed a regular and notable increase in tension during the periods of interruption. The results of this paper form the basis for the argument that the dynamics of completed and interrupted mental work may be understood in neuro-physiological terms. Instead of the doctrine of "psychic tension" as proposed by Lewin to account for these facts, only such

concepts have been utilized as competition, reinforcement, and inhibition. The suggestion is made that eventually all of Lewin's important research in the field of action may be reinterpreted in these or related neural terms."—H. Cason (Wisconsin).

2849. Haefner, R. The relation between hand and foot tendencies of children. *J. Genet. Psychol.*, 1930, 38, 338-351.—136 children of whom half were left-handed, were individually given a variety of hand and foot tests to determine preferential uses. No indication was obtained of a marked relation between hand and foot preferences of the same sides; though there was more indication of it in the one-handed than in the two-handed activities. Between specific hand and specific foot activities the relationships were rather specialized.—J. F. Dashiell (North Carolina).

2850. Helmoortel, J., & Nyssen, R. Los reflejos cocleares y su valor semiológico. (The cochlear reflexes and their semeiological value.) *Rev. Otor.-neur.-oftal.*, 1931, 6, 46-55.—Objective signs are to be preferred to subjective reports in the diagnosis of sensory deficiency because of the necessity of dealing with children and because of the possible effect of suggestion. General muscular reflexes have been utilized as objective signs of acoustic defects, the intensity of the reflex being correlated with the intensity of the stimulus and other individual factors. In cases of complete labyrinthine deafness the strongest of cochlear stimulations remain without effect. Every acoustic muscular reaction is accompanied by a stimulation of the palpebral musculature. Working with normal individuals as well as with deaf-mutes entirely devoid of hearing, it was found that a light draft of air directed into the cavity of the concha and into the helix causes the palpebral reflex in a striking manner. This stimulation when applied to 104 normal subjects in both ears caused the palpebral reflex in every case; in 14 normal subjects the reflex appeared after stimulation, in only one of the ears; 14 other normal subjects revealed no response whatever of this character. These represent a positive reaction in 89% of the normal cases. The same stimulus called forth the reflex in 13 of 19 completely deaf subjects.—J. W. Nagge (Chicago).

2851. Klemm, O. Gedanken über Leibesübungen. (Reflections on bodily exercises.) *Neue psychol. Stud.*, 1930, 5, 145-167.—New experimental results are reported about the fatiguing and refreshing after-effects of bodily exercises, especially over long periods according to Krueger's method. Special laws of psychological fatigue are uncovered to which those of physiological fatigue are subordinated. This is shown especially in the diverse forms in which the attitude towards the actual whole is realized. The bodily behavior of man must be placed under the point of view of the psychology of totality.—O. Klemm (Leipzig).

2852. Leuba, C. J. A preliminary experiment to quantify an incentive and its effects. *J. Abn. & Soc.*

Psychol., 1930, 25, 275-288.—Practice under the no-incentive conditions was not followed by any appreciable change in output, after the preliminary trials of the first week. With the subjects and under the conditions of this experiment, there was an increase of 52% over the no-incentive level of work to secure a chocolate bar. A situation in which a great variety of incentives, such as rivalry, praise, and social recognition were present in addition to the chocolate, resulted in a 65% gain. No-incentive trials after the introduction of the chocolate as an incentive showed an output similar to that of the no-incentive trials preceding the use of the chocolate. The absolute differences between individual performances were increased and the relative differences decreased with the introduction of any of the incentives used in this experiment. Boys tended to improve more than girls when incentives were introduced. There was a tendency for the percentage of errors to increase whenever the chocolate incentive was used.—C. H. Johnson (Boston Psychopathic Hospital).

2653. Luh, C. W., & Liang, B. T. An experiment in continuous dart-throwing. *J. Genet. Psychol.*, 1930, 38, 450-458.—Four subjects practiced dart throwing 100 times daily for 20 days. Of the two scales for recording, the equidistant scale and the equal difficulty scale, the latter seemed more significant. On the 21st day the throwing was done continuously for 12 hours, once per minute, with little fatigue effect.—J. F. Dashiell (North Carolina).

2654. Massoni, F. Guida alla volontà. (Guide to the will.) Milan: Cogliati, 1929. Pp. 115.—The author, who is also a poetess, divides the material into four chapters: the value of the will, how the will is educated, a day conquered by means of a good will, the victories of the will. In the third chapter there is gathered together much advice on how to live daily according to the rules of a well educated will. There is an appendix containing 15 commandments of the will which all men ought to respect in order to fulfil their duties and to live a happy life.—V. D'Agostino (Turin).

2655. Powers, H. D. Biochemistry in relation to intelligence. *Science*, 1931, 73, 316.—Blood tests were made on 12 normal or superior persons and 20 idiots. The Clark-Collip modification of the Kramer-Tisdall method was used for the determination of calcium, with the result that practically every case came within the normal range; all the idiots were normal in their calcium-content. The Fiske-Subbarow method was used for the determination of inorganic phosphate in blood plasma. The phosphate-content of the normal group was found to range between 3.25 and 8 mg. per 100 cc. of blood, but in only one case was it above 5.88 mg., and in that case a retest one month later showed 3.01 instead of 8 mg., suggesting that the excess was temporary. Without a single exception, the idiots had a high phosphate content, ranging from 5.98 to 12.48 mg. and averaging 8.95 mg. per 100 cc. of blood, as compared with an average of 4.36 mg. for the normal group. No

characteristic sex differences appeared in calcium or phosphorus, and there was no reciprocal relation between the amount of calcium and that of phosphorus, especially in the case of the idiots.—R. R. Willoughby (Clark).

2656. Quinan, C. The principal sinistral types. An experimental study particularly as regards their relation to the so-called constitutional psychopathic states. *Arch. Neur. & Psychiat.*, 1930, 24, 35-47.—1000 university students examined as to handedness and eyedness. Statistics. Sinistrals definitely more musical in their tastes. The sinistrals, especially those of the right hand-left eye type, are apt to show signs of constitutional instability.—(Bibliographia Eugenica).

2657. Rice, G. Eye and hand movements in the training of perception. *Child Development*, 1931, 2, 30-48.—An "attempt to correlate the actual motor concomitants of eye and hand in an act of perception." Ten pairs of twins were used as subjects. These subjects varied from 4:6 to 7:10 in age, and varied from 80 to 125 in IQ. In the test series the subjects were shown four figures (diamond, square, circle and triangle) for ten seconds; while they were doing this a photographic record was made of the eye movements, and also a smoked paper record of hand movements was obtained with a Titchener automatograph. The two records were synchronized. Following this exposure the subjects were to draw the figure that they had observed. An orientation discrimination test and a tactual discrimination test were also used. The twins were divided into two groups of five pairs each. The pairs were further divided into experimental and control groups, so that one member of each pair was subjected to a period of training while the other served as a control. One group of five was given "eye-training" once a week for three weeks and then compared with the control group. The other group was given "hand-training" for a similar period and compared with its control. "Under the conditions of the experiment we have found no transfer effect of any kind from imposed practice of eye and hand movements on eye and hand movements of an unrestrained nature used during observation of plane figures. Nor have we found, from the inspection of the synchronized records of hand and eye movement during observation, or practice, any carry over effect of the directed activity of the one into the random activity of the other. We have found a definite practice effect in the specific activity undertaken during the practice periods, and a possible transfer effect of this practice on the rather indefinitely defined activity of drawing the figure observed." The author attributes the negative results to inadequacy of the training technique, yet presents the experiment as being suggestive of further work in this field.—W. McTeer (Detroit City College).

2658. Scheidemann, N. V. A study of the handedness of some left-handed writers. *J. Genet. Psychol.*, 1930, 38, 510-516.—16 of 34 children in a 2nd grade room were left-handed writers. Administra-

tion of seven of Haefner's tests and two additional ones brought to light that 10 of them were really right-handed children. This, coupled with the teacher's report of nervousness in some of them, suggested the recommendation that these be retrained to right-handed writing habits.—*J. F. Dashiell* (North Carolina).

2659. Shattuck, G. C., & Benedict, F. G. Further studies on the basal metabolism of Maya Indians in Yucatan. *Amer. J. Physiol.*, 1931, 96, 518-528.—These Indians are the first racial group in which the average metabolism has been discovered to be somewhat above the basal metabolism of North American whites; other subtropical peoples have a lower metabolism, at times markedly lower. A group of 26 male Mayas studied in 1930 showed a high basal metabolism with a low rate and low blood pressure. These people are quiet, phlegmatic, and non-temperamental.—*Z. Piotrowski* (N. Y. Psychiat. Inst.).

2660. Waters, R. H. The influence of large amounts of manual guidance upon human maze learning. *J. Gen. Psychol.*, 1930, 4, 213-228.—A study of the learning and retention of the stylus maze by a control group which learned by the usual trial-and-error method, and by three experimental groups who were given 20, 40, or 80 initially guided trials. The average percentage of gain in trials, errors, and time for 20, 40, and 80 guided trials was roughly 12, 36, and 46%. When guidance was included as a part of the learning records, guidance was detrimental in terms of trials, and the deleterious effect increased with the amount of guidance given. In terms of time, guidance was at first slightly beneficial and then detrimental. Using final speed as an indication of the degree of mastery, the control group was superior to the guided groups.—*H. Cason* (Wisconsin).

2661. Wolfe, H. M. Time factors in conditioning finger-withdrawal. *J. Gen. Psychol.*, 1930, 4, 372-378.—The subject rested the end of his middle finger on a small electrode, while his palm lay over a larger one. The unconditioned stimulus was an electric shock and the conditioned stimulus was the sound of a bell. The practice periods were about 55 minutes long, with 340 joint stimulations, and three stimulations out of every 20 were with the auditory stimulus alone. Any movement of the finger following the auditory stimulus and occurring before the end of the period during which the shock was regularly given was counted a conditioned response. "With an interval series in steps of .25 seconds, beginning with the unconditioned stimulus (shock) .50 seconds before the conditioned stimulus (sound), and ending with the shock 1.50 seconds after the sound, the mean percentage of conditioning for the separate intervals was 10, 13, 19, 29, 37, 22, 14, 12, and 8. The maximal amount of conditioning was 37%, using the .50-second interval with the sound presented first, which, therefore, in this experiment represents the optimum interval for conditioning. Even when the sound was presented .50 seconds after

the shock, the conditioning amounts to 10%."—*H. Cason* (Wisconsin).

[See also abstracts 2628, 2663, 2686, 2690, 2720, 2901.]

PLANT AND ANIMAL BEHAVIOR

2662. Clark, A. H. Some observations on butterfly migrations. *Scient. Mo.*, 1931, 32, 150-155.—Descriptive accounts with incidental suggestions of explanation.—*J. F. Dashiell* (North Carolina).

2663. Coghill, G. E. The development of half-centers in relation to the question of antagonism in reflexes. *J. Gen. Psychol.*, 1930, 4, 335-338.—In *Amblystoma* the paired "half-centers" of progression movement emerge from a unitary matrix of motor neuroblasts. Two principles operate in this development that are basic to the understanding of the antagonism of reflexes: first, "half-centers" emerge within an originally unitary and integrated system, and, second, reflexes are facilitated by the growth of neurons after they begin to function as conductors.—*H. Cason* (Wisconsin).

2664. Elton, C. *Animal ecology and evolution*. Oxford: Clarendon Press, 1930. Pp. 96.—Three lectures, in which the author suggests the psychological concepts of selection of the environment (by the animal), and "tradition." Bibliography of 60 items.—*R. R. Willoughby* (Clark).

2665. Fischel, W. Weitere Untersuchung der Ziele der tierischen Handlung. (Further investigation of the aim of animal activity.) *Zsch. f. vergl. Physiol.*, 1930, 11, 523-548.—The experiments with the porcupine showed that this animal will search for a preferred food when it is not at hand, demonstrating the existence of a memory effect. In like manner, goats could be seen to survey a visual field in order to find the bread that might be contained in it (this food being preferred by them to green stuff). They could also be trained through long practice to seek for hidden food, and to open a closed box in order to reach it. In the experiments with lemurs, it was found that these animals could find a fruit if it was placed in one of two boxes inside their cage, but they failed to find it if the fruit was placed in the boxes outside their cage and the two boxes were then transferred to their cage. They could make use of a string bound to a fruit outside their cage to draw in the food provided the string lay at right angles to the edge of the cage, but they failed if the string attached to the fruit lay at an oblique angle. Bibliography.—*W. D. Commins* (Stanford).

2666. Hertz, M. Die Organisation des optischen Feldes bei der Biene. II. (The organization of the optic field of the bee.) *Zsch. f. vergl. Physiol.*, 1929, 11, 107-145.—By using figures of broken contour, it was shown that the bees naturally chose these, in their search for food, rather than corresponding figures of unbroken uniformity. The strength of the tendency that brought them to these could not be broken by attempts at training them to fly to the

non-preferred figures. From such experiments it was concluded that the distinctive characteristics of the optic field of the bee depend upon the following: figure as opposed to ground, contour-richness, figural independence as opposed to figural dependence, relative smallness of the figure, figural differentiation as against figural uniformity. The author claims that such an organization of the optic field, independent of the search for food or shelter, is what would naturally serve to bring the bee to its spheres of great vital interest—flowers, trees, branches, crevices, holes, etc. Flower forms of great contour-richness would be preferred to large, unbroken, closed forms. It was also shown that the bee would make the same response to a particular form, whether black on white or white on black; it had the character of a transposable structure. The absolute, "positive" value of the form, furthermore, was shown not to be directive of the bee's reaction, but rather the relation of this to the surroundings, or the whole situation.—W. D. Commins (Stanford).

2667. MacGillivray, M. E., & Stone, C. P. Suggestions toward an explanation of systematic errors made by albino rats in the multiple light discrimination apparatus. *J. Genet. Psychol.*, 1930, 38, 484-489.—Analysis of the error data in this apparatus revealed an alternation factor, this tendency in the animals' running apparently operating as a causative agent in omission as well as commission of errors.—J. F. Dashiell (North Carolina).

2668. Maier, N. R. F. Attention and inattention in rats. *J. Genet. Psychol.*, 1930, 38, 288-306.—After being made familiar with a starting table and a bifurcating roundabout elevated pathway leading to two other tables, to the right and to the left respectively, and after the preliminary training of a positive food reaction to a light stimulus, rats were tested in a series of trials in which the light appeared on right and on left tables in irregular order. It was found that fewer errors of turn on the roundabout pathway were made on the first trials after a new placing of the light than on succeeding trials. This is taken to show that errors in animal running are due not simply to incompleteness of learning but also to inattention in a more or less familiar setting.—J. F. Dashiell (North Carolina).

2669. Melton, A. W. A note on the relation between brain injury and retentiveness. *Psychol. Bull.*, 1931, 28, 175-180.—That Lashley has measured the relationship between cerebral injury and retentiveness per se is questionable. Since his technique involved the interpolating of other problems between his learning and relearning tests, his results showing a correlation between magnitude of cerebral injury and retardation in relearning are ambiguous: the factor of retroactive inhibition must be considered along with that of retentiveness per se. In fact, susceptibility to retroactive inhibition is worthy of investigation on its own account.—J. F. Dashiell (North Carolina).

2670. Minich, D. E. The chemical sensitivity of the legs of the blow-fly, *Calliphora vomitoria* Linn., to

various sugars. *Zsch. f. vergl. Physiol.*, 1929, 11, 1-55.—Since the blow-fly extends its proboscis upon appropriate stimulation of the legs, it was possible to use this behavior as an index of the sensitivity of the legs to solutions of various sugars. It was concluded that the receptors in the leg are organs of a chemical sense, because they were not responsive to lactose in the same concentrations as produced a response in the case of saccharose (the two solutions were equal in osmotic pressure and viscosity). "Since the chemoreceptors of the leg of the blow-fly are concerned, to some extent at least, with the discrimination of food substances, they may be appropriately termed organs of taste." Bibliography.—W. D. Commins (Stanford).

2671. Murr, L. Über den Geruchssinn der Mehl-mottenschlupfwespe *Habrobracon juglandis* Ashmead. (On the olfactory sense of the meal-moth ichneumon-fly, *Habrobracon juglandis* Ashmead.) *Zsch. f. vergl. Physiol.*, 1930, 11, 210-270.—The finding of its prey by the ichneumon-fly, and the finding of its mate, are mediated through the sense of smell, with the receptors in the antennae. After amputation of both antennae these two reactions fail. The removal of one antenna does not seem to handicap the animal, however, but in its behavior it seems to favor the non-operated side of the body. The ichneumon-fly follows the trail of its prey over the ground, but it may still find the prey when no odorous trail is present. Reaction to odors at a distance, and osmotropotaxis are sufficient to explain this without the intervention of vision. Bibliography.—W. D. Commins (Stanford).

2672. Scharrer, E. Über hell- und Dunkelstellung im Fischauge bei einseitiger Belichtung. (On bright and dark adaptation of the fish's eye in unilateral exposure.) *Zsch. f. vergl. Physiol.*, 1929, 11, 104-106.—By taking great care to exclude one eye from exposure to the light through the use of rubber sponges, black paper, etc., the author found that, in the case of minnows and sticklebacks, it was possible to obtain evidence (microscopic) of dark adaptation in this eye, while the other eye showed light adaptation after unilateral illumination. Although these results do not favor the existence of "retinomotor" fibers, regulating the position of rods, cones, or pigment, the author admits that in the higher vertebrates it may be that such nervous connections exist.—W. D. Commins (Stanford).

2673. Scheffer, T. H. Habits and economic status of the pocket gophers. *U. S. Dept. Agric., Tech. Bull. No. 224*, 1931. Pp. 27.—The pocket gophers (Geomyidae) are non-gregarious subterranean rodents with poor vision, but highly developed tactual and olfactory sensitivity. The burrowing, feeding, nesting, and breeding habits are described. Bibliography.—C. M. Louttit (Ohio).

2674. Seifert, R. Sinnesphysiologische Untersuchungen am Keimfuss (*Triops cancriformis* Bosc.) (Sense-physiological investigations on the branchiometer *Triops cancriformis* Bosc.) *Zsch. f. vergl. Physiol.*, 1930, 11, 386-436.—The animal shows a

characteristic phototropic reaction, with its back toward the source of light. This reaction takes place only when it is swimming freely, as the animal's reaction to contact, which consists in pressing the ventral side against the stimulating object, predominates and may nullify the light reflex. The complex eye is involved in this reflex, but not apparently in the taking of food. For the latter purpose, the contact receptors on the first pair of legs, the olfactory organs on the hairs of the antennae, and the taste receptors on the legs and maxilla, are to be considered the significant factors. Bibliography.—W. D. Commins (Stanford).

2675. Smith, F. F. A further comment on the "pumping" habit of plant lice. *Science*, 1931, 73, 364.—The movement is not strictly simultaneous, but moves in waves, as if due to the passage of a stimulus. It has nothing to do with the sucking action, but serves to repel attacks by parasites and similar sensory stimuli.—R. R. Willoughby (Clark).

2676. Snell, P. A. The neuro-muscular mechanism controlling flashing in the Lampyrid fireflies. *Science*, 1931, 73, 372-373.—Time-intensity curves have been made of the flashes of *Photuris pennsylvanica*. The duration is from .09 to .16 second. Electrical stimulation will elicit the flash in the absence of the head and thorax, but with rapid injury to the mechanism. Reduction of pressure below 20 mm. Hg injures the mechanism. Indications are that control is effected through the tracheal end cell, by regulating the admission of oxygen to the photogenic cells; variation is due to differences in the number of cells in action and in the amount of oxygen admitted to each.—R. R. Willoughby (Clark).

2677. Stagner, R. Visually determined reactions in the vertebrates. *Psychol. Bull.*, 1931, 28, 99-120.—163 titles reviewed and indexed under four divisions of the vertebrate phylum: fishes, amphibia, and reptiles; birds; lower mammals; primates. Under each heading such divisions are made as: reaction to light, brightness discrimination, color vision, size and pattern, Gestalt phenomena.—J. F. Dashiell (North Carolina).

2678. Steinmann, P. Vom Orientierungssinn der Trichaden. (On the sense of orientation in Trichaden.) *Zsch. f. vergl. Physiol.*, 1929, 11, 160-172.—Using a technique of vital staining, it was shown that there was a groove at each side of the head, bordered by specialized epithelial cells, through which the water streamed. The author considers these structures, after the analogy of the "sense-stripes" in planaria, as sense-organs concerned in rheotaxis and chemotaxis. Orientation to food is possible for the animal through the use of these structures. Bibliography.—W. D. Commins (Stanford).

2679. Tolman, E. C. Maze performance a function of motivation and of reward as well as of knowledge of the maze paths. *J. Gen. Psychol.*, 1930, 4, 338-342.—The account of maze performance is inadequate which conceives the rat as responding to a mere series of moment-to-moment stimuli. The

following categories are proposed for the description and prediction of the maze performance of the rat: (1) knowledge of the maze paths, (2) motivation, (3) the goal-object actually provided at the exit, and (4) the reward-value of the provided goal-object.—H. Cason (Wisconsin).

2680. Warden, C. J. A note on the early history of experimental methods in comparative psychology. *J. Genet. Psychol.*, 1930, 38, 466-471.—Letters from Hobhouse and Kline are cited.—J. F. Dashiell (North Carolina).

2681. Wolf, E. Die Aktivität der japanischen Tanzmaus und ihre rhythmische Verteilung. (The activity of the Japanese dancing mouse and its rhythmic distribution.) *Zsch. f. vergl. Physiol.*, 1930, 11, 321-344.—The activity of the animals was measured by means of a suspended cage connected by a recording lever with a revolving kymograph drum. It was found that there were two high points in the daily activity of the animal, one in the evening and one in the early morning. Keeping the conditions of illumination constant by keeping the animals in the dark produced no effect upon this rhythmicity or upon the time of day at which the maxima appeared. With animals, however, that had been reared from birth in darkness, the periods of greatest activity did not coincide with the morning and evening maxima of the controls, but were distributed throughout the day in an irregular fashion. Constant temperature did not destroy the rhythm, but extreme variations in temperature affected the total amount of activity during the day. At 4° C. there was a diminution in the total daily activity, at 31° an increase, and between 8° and 28° there was no correlation of activity with temperature changes. The feeding times were found to be regularly distributed over the activity and the rest periods. Their length was positively correlated with temperature changes. Bibliography.—W. D. Commins (Stanford).

2682. Yoshioka, J. G. Direction as a factor in maze solution in rats. *J. Genet. Psychol.*, 1930, 38, 307-320.—In a multiple-T maze in which the goal-direction was clockwise rats entered more often blinds lying to the right. In a triangular maze with two parallel paths running clockwise a preference for the right was manifested; but interpretation is ambiguous. In a diamond maze with goal-direction alternately left and right, no group preference was shown for right or left turns. It is concluded that in maze running an animal learns the goal-direction as part of the problem.—J. F. Dashiell (North Carolina).

2683. Yoshioka, J. G. Handedness in rats. *J. Genet. Psychol.*, 1930, 38, 471-474.—100 rats were tested for handedness in reaching through a wire mesh for food. Very few were found to be ambidextrous, the rest dividing about equally into right- and left-handed. A slight association between handedness and arm length was noted.—J. F. Dashiell (North Carolina).

[See also abstract 2693.]

EVOLUTION AND HEREDITY

2684. [Anon.] Transmission of mental defect. *Lancet*, 1930, 219, 1026-1027.—Discussion of results obtained by A. C. Williams in a study of mental status of the parents of 100 mentally defective children and of 66 families in an independent group concerning which the school for mental defectives had an accurate knowledge; and comparison with some other statistics.—(Bibliographia Eugenica).

2685. Bakwin, R. M. Similarities and differences in identical twins. *J. Genet. Psychol.*, 1930, 38, 373-397.—Twenty pairs of identical twins were studied by means of disease history, batteries of anthropometric, intelligence, scholastic, and will-temperament tests, and observations of personality make-up. In general, close similarities and identities were recorded in regard to most traits, but variations in others.—J. F. Dashiell (North Carolina).

2686. Baldwin, M., & Ewert, P. H. A study of motor activity in three pairs of identical twins. *J. Genet. Psychol.*, 1930, 38, 458-466.—The performances of twin subjects in motor and intelligence tests were more similar than for non-twin subjects, suggesting that certain tests such as tapping and card-sorting may be of value in twin-identification.—J. F. Dashiell (North Carolina).

2687. Bogardus, E. S. Personality and the genes. *Sociol. & Soc. Res.*, 1930, 15, 73-78.—(Soc. Sci. Abst. III: 4775).

2688. Boldrini, M. Di alcuni fattori dell'aumento di popolazione. (Some factors in the increase of population.) *Riv. ital. di stat.*, 1929, 1, 332-343.—(Soc. Sci. Abst. III: 4805).

2689. Hsiao, H. H. The status of the first-born with special reference to intelligence. *Genet. Psychol. Monog.*, 1931, 9, Nos. 1 & 2. Pp. 118.—From Hunan University, China, comes this study on the question of relation between birth-order and superiority. The data were collected in California. The author of the study is aware of the difficulties of such studies and cites the following: genuineness of first birth (previous casualties); possibility of birth of more children later (completeness of family); relative frequencies of various birth orders in general population; rate of mortality for various birth orders; trend in annual birth rate; social composition of the community; size of family; age of mother at birth of the child; social status of the family; and the possible bearings of the incidence of syphilis. Hsiao gives an exhaustive review of the literature in the field particularly as it pertains to physical traits including height, weight, skeletal and muscular conditions, diseases and physical peculiarities (consumption, pneumonia, typhus, cancer, and trauma, congenital diaphragmatic hernia, homosexual inclinations, congenital pyloric stenosis, epilepsy, short-sightedness, insanity, congenital cataract); mortality and longevity; fertility and sterility. He also reviews the literature in the field of behavior traits, including intelligence, talent and subnormality, criminality and others. In summarizing these some-

what confusing and contradictory researches, Hsiao says, "At birth the earlier-born seem to be inferior in height and weight to the later born but surpass them soon afterwards." He says the studies on disease suffer from lack of refinement of technique. Mortality, in these studies, appears to be a function of family size and there seems to be no difference between first and later born in respect to fertility. Hsiao's original data consist of Stanford-Binet results on 133 "pairs" of first and second born within a family; some scores for 258 "singles" (first and second members of different families); Terman Group Test scores from 183 "pairs" and 569 "singles"; National Intelligence Test scores from 118 "pairs" and 232 "singles"; and Abbreviated Stanford-Binet scores (starred tests only) from 100 pairs. "The singles were selected from families of at least two children, only children being excluded." "The question of incompleteness of families does not have to be considered in the present study, since it is concerned with the comparison of the first and second children and not with that of the eldest and the youngest members of the family." The number of cases studied totaled 2127. Hsiao feels that the composition and treatment of his data eliminate the difficulties enumerated above and justify the following conclusions: "The mean IQ difference, wherever it exists, is in favor of the first-born or the second-born according as the average chronological age of the latter exceeds or is exceeded by that of the former, but the elimination of their average discrepancy in chronological age results in the removal of their mean difference in IQ. . . . Therefore we may conclude that there is no difference in intelligence between the first- and second-born. . . . The present study tends to weaken the claim that the reduction of family size has a detrimental effect upon the average intelligence of the population; by the time of reaching school (if not before) the first-born are equal to the second-born. It would indeed be surprising if a later study, employing similar methods in a similar population, were to demonstrate that the first two birth orders are inferior to the third and subsequent orders." A bibliography of 135 titles is appended.—F. M. Teagarden (Pittsburgh).

2690. McIlroy, J. H. Hereditary ptosis with epicanthus: a case with pedigree extending over four generations. *Proc. Roy. Soc. Med.*, 1930, 23, 285-288.—Patient has also nystagmus and divergent strabismus. Transmission in this family is through the male.—(Bibliographia Eugenica).

2691. Mount, M. C. The inheritance of mechanical ability. *Eug. News*, 1930, 15, 174-175.—A family pedigree in which 11 out of the 12 adult male members have shown "a decided mechanical ability."—R. K. White (Stanford).

2692. Rüdin, E. Hereditary transmission of mental diseases. *Eug. News*, 1930, 15, 171-174.—Manic-depressive insanity reappears in one-third of the offspring, schizophrenia in one-tenth. (Source of these figures is not given.) Though our knowledge is but at its beginning, such facts as these should be

included in every elementary education.—*R. K. White* (Stanford).

2693. Skinner, B. F. On the inheritance of maze behavior. *J. Gen. Psychol.*, 1930, 4, 342-346.—Critical discussion of a paper by E. M. Vicari, "Mode of inheritance of reaction time and degrees of learning in mice," *J. Exper. Zool.*, 1929, 54, 32-88.—*H. Cason* (Wisconsin).

2694. Thompson, W. S. Recent changes in the birth rate and their significance for child welfare. *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1930, 151, 25-31. (*Soc. Sci. Abst.* III: 4799).

2695. Watkins, H. M. Selective sterilization. *J. Psycho-Astheneics*, 1929-30, 35, 51-67.—(*Soc. Sci. Abst.* III: 4807).

2696. Wilson, P. T. The significance of twins. *Calif. Parent-Teach.*, 1930 (Nov.), 8-9.—Scientific study of twins may aid in understanding the development and behavior of the ordinary man. At the Institute of Child Welfare (Berkeley) observations are being made of 1634 twins. Data show that twinning is not, as popularly supposed, a strong family trait. Left-handedness is much more prevalent among identical twins than in the whole population. Pairs of identical twins have a tendency to be sick together. If one of a pair of identical twins has a prison record, the other is nearly always a criminal also.—*M. P. Montgomery* (Faribault, Minn.).

2697. Wilson, T. P., & Jones, H. E. A study of like-sexed twins. I. The vital statistics and familial data of the sample. *Human Biol.*, 1931, 3, 107-132.—In four school systems of a total enrollment of 75,000 pupils 1051 individual twins were found. Of 471 pairs with both members living 28% were male, 39% female, and 33% mixed. The familial characteristics were determined by interviews with the mothers of 212 like-sexed twins. About one-third of the fruitful pregnancies yielded twins and the fertility of the mothers bearing twins was about the same as of those not bearing twins. Few twins were born at the first pregnancy and the average age of the parents of twins was higher than that of parents of single born in the same locality. There was no reliable difference between the weight of identical and fraternal or of first-born and second-born. The average weight of the individuals was 6 pounds, but the males weighed more than the females. Bibliography.—*O. W. Richards* (Yale).

[See also abstracts 2735, 2749.]

SPECIAL MENTAL CONDITIONS

2698. Allers, R. Bemerkungen zur Lehre vom Charakter. (Comments on the theory of character.) *Vjsch. f. Jugendk.*, 1931, 1, 1-10.—The author gives a brief critique of the concept of character, defining it finally as the principle of value (*Wertvorzugsge-setz*) according to which the individual directs his behavior. Such a definition, he holds, makes possible change and development of character, which is basic for a psychology of character. The present interest

in character training is due to the combined influence of medical and scientific psychology.—*R. H. Waters* (Arkansas).

2699. Angyal, A. Zur Frage der Traumsymbolik. (On the question of dream symbolism.) *Zentbl. f. Psychotherap.*, 1931, 4, 107-119.—Apropos of Bumke's article an answer is attempted to the two questions: Is there symbolism in dreams, and if so is the psychoanalytical interpretation valid? Defining symbol as anything which stands for or represents something else, examples are given to show that it is frequent in dreams. Words are given new meanings and things are given new names. Thoughts which occurred before sleep are continued in symbolic form in dreams. Allied to this is the continuance with new content of a mechanical operation engaged in just prior to going to bed, a frequent phenomenon in fever states. At times one person may be substituted for another because of similarity between names. This is the same type of association which occurs in all thought. In dreams the characteristic difference from conscious thinking is due not to a difference in the kinds of mechanisms involved but to an increase in association and perseveration, the hallucinatory character of images, the absence of determining tendencies and disturbance of critical power. The existence of dream symbolism can therefore be established on non-psychanalytic grounds. But the interpretation is not always that which psychoanalysis gives. The difference between dream symbols and other symbols is that the latter are always used for some purpose, the former are purposeless chance affairs. Suppressed thoughts of unpleasant character do, however, occur in substituted forms in dreams. In the waking state, if aroused by association, these are not allowed to become clear. In a dream they are not admitted either, but associated facts are admitted because their relation to the unpleasant thoughts is not realized. The elaborate concepts of suppression, censor and the unconscious are unnecessary. It is probable that typical symbols do occur in dreams. It is possible that they have a diagnostic significance, but there is no criterion as to the truth of any interpretation they may be given. It is not even easy to distinguish in the dream content between what is symbolic and what is not.—*M. A. M. Lee* (Chicago).

2700. Bagby, E. Dreams during periods of emotional stress. *J. Abn. & Soc. Psychol.*, 1930, 25, 289-292.—It is contended that dreams may have their primary motivation in current emotional stresses. Since the period of engagement before marriage gives rise to emotional problems of various sorts, a study of dreams at this time afforded a convenient test, and seemed to confirm the theory.—*C. H. Johnson* (Boston Psychopathic Hospital).

2701. Barry, H., Jr., Mackinnon, D. W., & Murray, H. A., Jr. Studies in personality. A. Hypnotizability as a personality trait and its typological relations. *Human Biol.*, 1931, 3, 1-36.—52 men and 17 women were hypnotized and an hypnotic index determined for each based on the number of sugges-

tions carried out by the subjects and on the amount of amnesia obtained. This six-point scale was found to express quantitatively with some degree of reliability the trait of hypnotizability. 25% of the sample college group was hypnotizable to the extent of complete suggestibility with some amnesia. The correlation between two trials performed within about a week of each other by different operators or by the same operator after several months was 0.75. The scores of the hypnotic index correlated with a group test and with Hull's swaying test gave a coefficient of 0.52. Suggestibility under hypnotic conditions did not correlate with suggestibility when the subjects assumed their customary attitudes. The results are discussed with respect to the concept of dissociation.—*O. W. Richards* (Yale).

2702. Bernfeld, S., & Feitelberg, S. The principle of entropy and the death instinct. *Int. J. Psychoanal.*, 1931, 12, 61-81.—The development of Freud's concept of the death instinct, which is purely speculative, must be more carefully investigated before it can be accepted. The question is whether in overstepping the boundaries of psychoanalysis he is merely misusing an analogy or whether he has introduced a new scientific theory; he identifies the death instinct with the general principle of stability in nature. The present authors apply the theory of energy to this concept. All physical processes in any system tend to equalize the intensities of the energies. Such ultimate cancelling out occurs only when differences in temperature are equalized, and therefore, this thesis affirms that the maximum state of repose can occur only when all the energies have been converted into heat. This is termed the entropy principle. The problem to be solved is whether the death instinct can be conceived of as a special case of the entropy principle. Freud claims that the organism strives to attain stability, complete repose; it is suggested that the "Nirvana principle" is a better name than "death instinct." The authors describe the body as a dual system, the central nervous system (P) and the body cells (C). A low potential difference between these two systems results in sleep; when the potential difference becomes high, the individual awakes, and the balance is regained. The authors conclude that the sexual instinct and the instinct of destruction alone can rank as instincts, i.e., specific behavior of living systems, while the death instinct represents the general behavior of natural systems.—*D. E. Johannsen* (Rochester).

2703. Brachfeld, O. Über "Glyptophilie." (Statue-worship.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 17, 420-425.—The kissing of photographs, busts, or plaster casts of beloved persons, and the kissing of religious pictures and statues, may be called a sexual aberration, but not a perversion.—*H. Marshall* (Stanford).

2704. Brauchle, A. *Psychoanalyse und Individualpsychologie*. (Psychoanalysis and individual psychology.) Leipzig: Reclam, 1930. Pp. 76. M. 40.—The author is neither a psychoanalyst nor an individual psychologist, but a suggestion therapist.

However, he considers both fields so important that they should be given the widest possible dissemination. Brauchle himself went through a psychoanalytic cure which in its operation was inferior to autosuggestion. Psychoanalysis is treated in 51 pages, individual psychology in 23 pages. The presentation is purely factual and personal opinions are avoided. First a short historical review of psychoanalysis is given; then follows a presentation of cases of error in which the author includes only examples of his own observation. The second chapter, on the dream, discusses the distorted and the undistorted dream. A sketch epitomizes the relation of the latent to the manifest dream, the significance of dream activity and the dream censor, the cleavage between the conscious and the subconscious, and the structure of the ideal self. In the third section the actual neuroses and the psychoneuroses are discussed. The development of the libido is outlined. A schematic outline of conversion hysteria gives a plastic concept of the changes of the libido. A short review introduces individual psychology. General and heightened inferiority feelings are discussed. The conditions under which an increased inferiority appear are treated in an appendix. A table is given to show a normal and a disordered development considered from the point of view of individual psychology.—*A. Brauchle* (Berlin).

2705. Bryant, E. C. The divining rod. *Science*, 1931, 73, 365.—Tests on a Vermont dowser show that the movement is initiated, probably unconsciously, by rotating the right forearm. The rod is irrelevant, and the proportion of successes about that to be expected by chance.—*R. R. Willoughby* (Clark).

2706. Dessoir, M. *Vom Jenseits der Seele. Die Geheimwissenschaften in kritischer Betrachtung*. (From the other side of the soul. Occult science critically considered.) (8th ed.) Stuttgart: Enke, 1931. Pp. 576. M. 16.00.—A new edition, completely revised, of a well-known book which has been out of print for some time. The author has added considerable new material based on investigations carried out with clairvoyants and mediums in the past ten years. He has added chapters on clairvoyance in medicine and in the treatment of crime, and has enlarged other portions of the work. The book is written from a philosophical point of view.—*H. Marshall* (Stanford).

2707. Huth, A. *Exakte Persönlichkeitsforschung. Begutachtungsmethoden der praktischen Psychologie*. (Exact personality study. Methods of examination in practical psychology.) Leipzig: Klinkhardt, 1930. Pp. 211. M. 8.40.—A practical book. From 1912 to 1929 inclusive the author made 30,000 psychological examinations on children, adolescents and adults. In his introduction he defines what "exactness" in psychology means and refers to inexact methods. The structure of personality is sketched very briefly. Then unified principles for observation, investigation and evaluation of personality are developed, principles which are necessary for all age levels and for all practical problems en-

countered. All one-sidedness is avoided; by employing together all the different kinds of examination methods an understanding of the total personality is guaranteed. A solution of the personality question verified a thousand times in practice is shown in examples of questionnaires filled out. Unified directions for the construction of personality studies are given and illustrated by examples from examinations. Over 350 adjusted evaluation tables for all age levels and all types of mental activity are appended. Thus observation, investigation and evaluation are brought together and unified. All theoretical and polemical discussions are avoided.—A. Huth (Munich).

2708. Jasper, H. H. The measurement of depression-elation and its relation to a measure of extraversion-introversion. *J. Abn. & Soc. Psychol.*, 1930, 25, 307-318.—A measure of depression-elation has been developed which may be used with large groups of "normal" individuals of the college age. The author believes that this DE test has shown sufficient reliability to indicate that it is measuring some functional unity running through the different reactions measured. The author also believes that the DE test has shown sufficient validity to indicate that he is justified in calling this trait depression-elation. A slight positive relationship was shown between elation and intelligence and between elation and high academic grades. The conclusion has been drawn from the administration of the depression-elation test (copy of test included in article) that the individual whose behavior is characteristically introverted has a higher probability of being depressed in affective quality than elated.—C. H. Johnson (Boston Psychopathic Hospital).

2709. Jones, E. The problem of Paul Morphy. A contribution to the psycho-analysis of chess. *Int. J. Psychoanal.*, 1931, 12, 1-23.—The author explains Paul Morphy's insanity as based on his failure to carry to completion his sublimation of his repressed father-hatred. By the age of 21 Morphy had defeated most of the greatest chess-players of the world. Only Staunton refused to play with him, and in such terms as to imply that he was only a boy, and unable to compete with him on equal terms. Jones feels that this frustration lay at the bottom of his giving up his chess-playing, which was the thing holding his unconscious guilt (desire to castrate the father) in abeyance. The chess-playing the author holds to be a sublimation process, which is a defensive mechanism. The ability to concentrate the libido on the defense mechanism, so that it could no longer control the id impulses, was lost, and with it the mental integrity.—D. E. Johannsen (Rochester).

2710. Kapp, R. O. Comments on Bernfeld and Feitelberg's 'The principle of entropy and the death instinct.' *Int. J. Psychoanal.*, 1931, 12, 82-86.—The present author criticizes the authors of the article for misusing physical terms, and failing to understand the distinction between physics and its concepts and psychology and its concepts.—D. E. Johannsen (Rochester).

2711. Kaus, O. Anmerkungen zur Individualpsychologie. (Remarks on individual psychology.) *Zentbl. f. Psychotherap.*, 1931, 4, 88-107.—Alfred Adler's statement that individual psychology is an art is developed as a timely note of warning to those who after too short and superficial a training have become familiar with a few isolated principles of individual psychology and apply them mechanically. The resulting interpretation is often entirely wrong, for although every life shows some feelings of inferiority and compensatory striving, successful analysis consists not in uncovering these but in discovering the major or central tendency. This may be likened to a melody or theme which reappears with variations and modifications and accounts for the essential unity of the patient's personality. Many factors are operating over many years to build the individual; to know only a few of these gives a false sense of security. Individual psychology stresses the understanding of the whole individual. To illustrate how difficult as well as how useful it is to carry out a careful complete analysis an example is given in considerable detail.—M. A. M. Lee (Chicago).

2712. Lipmann, O. Pharmakopsychologische Untersuchungen über Recresal. (Pharmacopsychological investigations with recresal.) *Zsch. f. angew. Psychol.*, 1931, 38, 152-156.—In this survey Lipmann has attempted to appraise the scientific and economic status of recresal, a commercial preparation of primary sodium phosphate, first used in German mines in 1918 to increase muscular output and thereby counteract some of the ill effects of war nutrition. Embden reported the first experiment in 1919: for a month two soldiers turned a wheel daily to exhaustion; the average number of turns on control days was 7500 and on phosphate days (when 5 g. thereof was administered) was 9150. At the Spandau police school of physical education, Herxheimer found that the drug exerted a definite favorable influence upon all endurance performances. Poppelreuter had 5 subjects add for one hour daily over a span of two months and observed a 10% superiority in both quantity and accuracy on the recresal days (which were alternated with control days). He was also able to determine with piece workers that on drug days the eighth factory hour did not suffer the decline in output which occurred on free days. Lipmann, however, criticizes the finding on the ground of suggestive influence—the experiment, e.g., occurred in the Recresal plant and the task consisted in packing the tablets. He also stresses the need for cautious phrasing of results, since they may be also easily misinterpreted. When the merits of recresal are expressed by saying that with it 90 workers can do the labor of 100, then it is understandable why the *Wiener Arbeiterzeitung* should point it out as a despicable new way of promoting unemployment. Had one said that a 10% reduction in working hours had occurred without diminution of the total performance and the money reward, no possible protest would have been raised.—G. W. Hartmann (Berlin).

2713. Ljungdahl, M. *Näget om förutsättningens psykologi.* (About the psychology of supposition.) *Svenska Läkart.*, 1931, 28, 266-284.—A survey of the psychology of influencing human behavior, from the point of view and experience of the writer as a physician.—M. L. Reymert (Mooseheart Laboratory for Child Research).
2714. Love, C. S. *Other people's lives.* *Univ. North Carolina Extension Bull.*, 1931, 10. Pp. 35.—An outline for study of seventeen wellknown persons, mostly writers, including a brief biographical sketch of each and references or readings arranged for a program.—M. P. Montgomery (Faribault, Minn.).
2715. Lübbeke, H. *Seelenkunde und Seelenführung.* [Adler's Psychologie von Jung aus betrachtet.] (Mental science and mental guidance. Adler's psychology from Jung's point of view.) *Preuss. Kirchenstg.*, 1930, 21, 316-321.—A. Römer (Leipzig).
2716. Luchsinger, F. *Gedanken als Kräfte.* (Thought as energy.) *Psychol. Rundschau*, 1931, 2, 343-347.—This article deals with the problem of para-psychology, especially the presentations of Giese in two recent contributions. It comments on the two types in this field: (1) suggestion from one mind to another, (2) hypnotic identification with others. In commenting on Giese's article, the author recognizes mind as energy and therefore not subject to physical laws.—A. B. Herrig (Michigan Central State Teachers College).
2717. Maller, J. B. *Size of family and personality of offspring.* *J. Soc. Psychol.*, 1931, 2, 3-27.—Data on family size were collected for 802 children in schools E, W, and L of Hartshorne and May's studies. Average scores for children grouped by family size showed slight relationship to trait tested. The "only" child excelled in moral knowledge. The child of small family excelled also in honesty. The child from moderate sized family rated highest in cooperativeness, helpfulness and inhibition. The child of the large family was above the average only in persistence. Low negative correlations were shown between family size and both intelligence and social status. Teacher's and children's ratings were highest for children from average sized families.—E. B. Newman (Bryn Mawr).
2718. Morf, G. *Von der geistigen Wirklichkeit.* (Concerning spiritual reality.) *Psychol. Rundschau*, 1931, 2, 353-356.—During the medieval age great emphasis was placed on the supernatural. The modern age has swung to emphasis upon the rational. When the idea of the spirit dominated, the body was mutilated. In our age of recognition of reason as dominant, we practice spiritual mutilations, a barbarism of equal magnitude; e.g., a father coerces a son of musical ability to enter a business distasteful to him; a wife who hopes for a child finds in her husband a determination that there shall be no offspring. Egoism causes many spiritual mutilations to those about us.—A. B. Herrig (Michigan Central State Teachers College).
2719. Patton, E. F. *The duration of post-hypnotic suggestion.* *J. Abn. & Soc. Psychol.*, 1930, 25, 319-334.—The reactions of amnesic subjects are neither as large nor as persistent as those of conscious subjects, and they exhibit a somewhat faster decrement with time. Post-hypnotic suggestion endures for at least a month. The reaction time for amnesic subjects is longer than for conscious subjects. Within the limits of this experiment, there is no evidence that a hypnotically suggested reaction would disappear with continuous testing. The magnitude of the response tends to increase with the number of previous hypnotizations for the longer time intervals. Results in retesting are possibly influenced by intervening hypnosis. With intervening hypnosis the response may persist for at least eight months.—C. H. Johnson (Boston Psychopathic Hospital).
2720. Penrose, L. S. *Freud's theory of instinct and other psycho-biological theories.* *Int. J. Psychoanal.*, 1931, 12, 87-97.—The author discusses the evolution of Freud's theory of the relationship between the different instincts and the pleasure-principle. Freud decided that the libidinal or sex instincts were governed by the pleasure-principle throughout the course of their development, but that the ego or self-preservation instincts renounce the pleasure-principle in some measure in the course of their development and are governed by the reality-principle. When Freud postulated the death instinct, a difficulty in relating it to the pleasure-principle was found, and so the Nirvana-principle was evolved. Freud accepts Fechner's principles of stability, and this is thought of as the unifying law of psychology. Bernfeld and Feitelberg have attempted to interpret this in physical terms, while Ferenczi has tried to interpret it in a purely descriptive way. These attempts at formulating a constancy principle to account for the behavior of living organisms is criticized, and it is concluded that if Fechner's principles of stability are made the basis of pleasure and pain "the death instinct becomes of theoretical interest only."—D. E. Johannsen (Rochester).
2721. Schmitz, O. A. H. *Zurück zur Natur?* (Back to nature?) *Psychol. Rundschau*, 1931, 2, 321-325.—Article speaks of the recurrence of the "back to nature" cry, in spite of the impossibility of gratification of such a wish. Man is poorly adapted to cope with forces of nature and in his entelechistic drive has surmounted nature by the use of tools. A return to nature would place him lower than the animals who are better adapted. It discusses the religious attitude toward the problem, asceticism being the opposite of the "back to nature" drive. Both are deep-seated desires; natural living lies in the integration of the two, and satisfaction can be attained only in this recognition.—A. B. Herrig (Michigan Central State Teachers College).

2722. Sharpe, E. F. The technique of psychoanalysis. *Int. J. Psychoanal.*, 1931, 12, 24-60.—V. Anxiety: outbreak and resolution. Description of the methods used in analyzing dreads and fears in patients. VI. Variations of technique in different neuroses. Delusion: paranoia; obsession; and conversion types. The basic difficulty for patients in these groups is to justify their existence, the power of the ego to function in reality. Because of the conflict, the justification of existence is achieved only by pains, aches, and stress. The struggle is given up in insanity; the ego's ability to justify its existence is sanity. The application of this principle is made to a variety of cases. VII. Technique in character analyses. The question of the "justification of the existence" is found to be the unconscious motive behind the appearance of a group of so-called "normal" people for an analysis. It is emphasized that nowhere more than with the normal is it necessary for the analyst to have a well-analyzed unconscious himself.—D. E. Johannsen (Rochester).

2723. Stalnaker, J. M., & Richardson, M. W. Time estimation in the hypnotic trance. *J. Gen. Psychol.*, 1930, 4, 362-366.—Nine well trained trance subjects estimated intervals of one, two, and three minutes under similar external conditions in the waking and hypnotic states; and no reliable differences were found in the average error of estimation between the two states. All observed tendencies towards over-estimation or under-estimation existed in both states.—H. Cason (Wisconsin).

2724. Stalnaker, J. M., & Cummins, E. W. A quantitative method of testing the diminution of the effect of post-hypnotic suggestion with the passage of time. *J. Gen. Psychol.*, 1930, 4, 366-372.—Some inconclusive data are given which were obtained with six subjects by the method described.—H. Cason (Wisconsin).

2725. Tolmachoff, I. P. The use of the divining rod in gold prospecting in Alaska. *Science*, 1931, 73, 365-366.—A dowser, apparently honest, described his successes to the author, and was corroborated to the extent that the latter observed the rod to dive during the conversation.—R. R. Willoughby (Clark).

2726. White, M. M. The physical and mental traits of individuals susceptible to hypnosis. *J. Abn. & Soc. Psychol.*, 1930, 25, 293-298.—A method of scoring hypnotic phenomena is given, doing away with the doubtful concept of clearly differentiated stages of hypnosis. No relation was found between height and depth of hypnosis, or weight and depth of hypnosis. Hypnotic susceptibility bears no relation to grades or mental alertness. A marked degree of relationship was found between the amount of body sway under the conditions described in the article and the hypnotic susceptibility. A high coefficient was obtained between the amount of extroversion as measured and the depth of hypnosis.—C. H. Johnson (Boston Psychopathic Hospital).

2727. Woolley, V. J. The visit of M. Pascal Forthuny to the Society in 1929. *Proc. Soc. Psych.*

Res. (E.), 1931, 39, 347-357.—After allowing for chance and for conscious or unconscious knowledge obtained by normal means, the author concludes that Forthuny obtains knowledge "from some supernormal faculty . . . telepathic or clairvoyant." "In these London experiments very little was said by him which had not at some time been known to someone present."—W. S. Taylor (Smith).

2728. Woolley, V. J., & Brackenbury, E. The Margery mediumship, and the London sittings of December, 1929. *Proc. Soc. Psych. Res. (E.)*, 1931, 39, 358-368.—The authors conclude that the "method of control is ineffective in preventing the medium from handling objects on the table, and thus useless for its purpose." Similarly, for "the production of the so-called 'Old Lady' thumb impression" on a piece of wax a natural explanation is suggested.—W. S. Taylor (Smith).

[See also abstracts 2687, 2729, 2821, 2875, 2882, 2908, 2974, 2981.]

NERVOUS AND MENTAL DISORDERS

2729. Ackermann, A. Überblick über die Methoden der heutigen Psychodiagnostik. (A survey of the methods of present-day psycho-diagnosis.) *Psychol. Rundschau*, 1931, 2, 325-329.—The author distinguishes between the patho-plastic phenomena in mental disorders, repeating themselves in a variety of cases, and the patho-genetic, which are specific, holding that the diagnostician must clearly distinguish them. Referring to the fact that personality involves different psychic levels, he emphasizes the relativity of these. Observation reveals that the typho-psychic drives lie deeper and are blinder than the sopthro-psychic, which give direction and reasonableness to the former. The article deals with the development of personality as a resultant of these two.—A. B. Herrig (Michigan Central State Teachers College).

2730. [Anon.] Supplementary bibliography on the blind feeble-minded. *Teach. Forum (Blind)*, 1931, 3, 12.—This short bibliography lists nine short articles on this subject by seven different writers.—S. D. Robbins (Boston).

2731. Burritt, O. H. The visually handicapped feeble-minded. *Teach. Forum (Blind)*, 1931, 3, 9-12.—The blind feeble-minded child needs custodial care far more than the seeing feeble-minded child. Morons and any others who belong to the so-called borderline area should be studied in an observation cottage to determine whether they "belong in the group of blind feeble-minded whose primary need is suitable elementary training and custodial care, or whether they can be advanced educationally in some subjects by individual instruction and other subjects by class instruction in the school for the blind." The partially-seeing feeble-minded should be absorbed into the several groups of the feeble-minded who see, when adequate training and care in their own homes are not possible.—S. D. Robbins (Boston).

2732. Chotzen, F. Zur Pathologie des Hilfsschulkindes. (The pathology of the retarded child.) *Zsch. f. Kinderforsch.*, 1930, 37, 588-652.—The author has based his investigation on the records of 950 admissions to the school for retarded children which took place in six Breslau institutions between 1920 and 1927. Among the ascertained causes of feeble-mindedness inheritance was the most frequent (57.8%). No cause could be found in 15% of all cases. There were 58.8% morons, 13.4% imbeciles, and 21.9% idiots whose average intelligence quotients were 77, 61, and 33 respectively. According to the results of the intelligence test 13% of all cases did not show any feeble-mindedness. These normal ones were the results of negligence and sickness. This group also contained cases of late maturity, infantilism, and psychopathy. 13.4% were borderline cases characterized by poor memory joined with clumsiness in perception and thought. 21.7% of the morons, 45% of the imbeciles, and 77% of the idiots had organic diseases. In place of the unification of such institutions as advocated by the teachers Chotzen demands further differentiation of the special schools in order to make possible the absolutely necessary individual treatment. The author proposes to introduce observation classes in order to overcome the difficulties of selection which are recognized by all persons that take part in this work.—*O. Seeling* (Berlin).

2733. Clark, L. P., & Cushing, K. A study in epilepsy. *Med. J. & Rec.*, 1931, 133, 27-31.—A case history which purports to show that an epileptic attack may be a manifestation of the death instinct, which mitigates the conflict with reality, after milder regressions have failed of this purpose.—*R. C. Givler* (Tufts).

2734. Clayton, M. D. Malingering in psychotic patients. *U. S. Vet. Bur. Med. Bull.*, 1931, 7, 129-132.—Three case histories with discussion pointing out that malingering is possible even though the individual is psychotic.—*C. M. Louitt* (Ohio).

2735. Dayton, N. A. Size of family and birth order in mental disease. *Amer. Sociol. Soc. Papers*, 1930, 24, 123-137.—The increasing number of persons with mental disorder requiring hospitalization, and the large numbers involved, draw attention to mental diseases as a major social problem. It is important to know the size of family in this group. Is the stock which produces individuals with mental disorder increasing or decreasing? This material makes it possible to compare successive generations involving mental disease, (Generation I) the number of children ever born to mothers of children later developing a psychosis, and (Generation II) the number of children ever born to married and fecund mental patients. The incomplete families of married and fecund patients admitted to mental hospitals under the age of fifty years are compared with other incomplete family groups. A similar comparison is made for the completed families of patients admitted at the age of fifty years and over. The marital condition of the entire group and the sterility in those

ever married are considered. A low marriage rate, high sterility in the married group, and other factors suggest a slight decrease in the particular stock under discussion.—(*Amer. Sociol. Soc.*)

2736. Doll, E. A. Parole of the feeble-minded. *Tr. School Bull.*, 1931, 28, 1-10.—The point is made that some feeble-minded can be released from institutions without fear of the need for return. Sometimes the institution has increased the likelihood of adjustment at the same time that conditions in the home or in the community have been improving. The study suggests the need for thoughtful consideration of the relative values of institutional care versus family and community supervision from the standpoint of total social economy and the individual welfare of the feeble-minded. Evidently the majority of the feeble-minded do not require institutional care, since less than one-tenth of the estimated number are wards of the state. It may be that there arises a critical period in the life history of each when institutional care may be imperative or desirable. We need to study the whole problem of feeble-mindedness, since at the present time we appear to be giving everything to the few and nothing to the majority.—*E. M. Achilles* (Columbia).

2737. Feuchtwanger, E. Amusia. (Amusia.) Berlin: Springer, 1930. Pp. vi + 296. M. 26.00.—Amusia in the pathological sense does not mean "the condition of not being musical," but denotes a lack of the ability adequately to experience musical images because of certain brain lesions. Disturbances of auditory sensation produced by pathological conditions in the peripheral mechanism of hearing; deafness, hardness of hearing, paramusia (diploakusis, etc.), likewise the (perceptive) diseases of the "auditory cortex" in the Heschl convolutions of the temporal lobe (cerebral deafness and hardness of hearing, cerebral anakusia) affecting experience of sounds, sound colors and consonance are not to be designated as amusia. Agnostic disturbances of the objectifying of auditory images, of the auditory "formal quality" of the musical material, of adequate perceptual formation in melody, chord structure, concordance, harmonization and its systematic apprehension in a tonality (tone system, pitch, etc.) constitute sensory amusia. Herein are included disturbances of attention, apperception, and association in the auditory field, also disorders of ideation and memory of musical auditory material. There is no distinction in principle between the gnostic "image formation" of clangs, speech sounds and noises, only a differentiation; in regard to localization they are all associated with a correspondingly extensive brain area of the bilateral middle and posterior portions of the first temporal convolution. According to this Wernicke's area is no longer only a "sensory language area" but an "auditory image area." Expressive amusia, in so far as it is restricted to the expression of auditory material, is to be understood as an "auditory-constructive disturbance" (agnostic), and is produced by a general apraxia. The rational-categorical setting of "clang objects" as a

basis for giving names (pathologically, clang name amnesia) and for giving symbols (pathologically, certain disturbances in note reading and writing) is to be distinguished from perceptual imagination of clang material. Musical exposition and expression as *symbolic functions* and their disturbances are to be distinguished from symbols. With this distinction there appear extensive parallels between the visual and the auditory fields.—*E. Feuchtwanger* (Munich).

2738. **Good, T. S.** The history and progress of Littlemore Hospital. *J. Ment. Sci.*, 1930, 76, 602-621.—The presidential address at the 89th annual meeting of the Royal Medico-Psychological Association. Good, medical superintendent of Littlemore (Mental Hospital) for almost thirty years, indicates the research work and methods of treatment engaged in before, during and after the war. Histological studies of the brain marked the pre-war years; the use of hypnosis was successful during the war, but as pensioners became more numerous as patients this technique was dropped. More recent activities reported on: methods of hydro-therapy, pathological research, administration of drugs, anthropometric measurements, nursing, administrative policies. Good stresses the success he has had with the open-door system and with the policy of frankly discussing with the patients their troubles and the reasons for the adopted methods of treatment.—*L. M. Hatfield* (Canton, Ill.).

2739. **Hartmann, H.** Gedächtnis und Lustprinzip. (Memory and the pleasure principle.) *Zsch. f. d. ges. Neur. & Psychiat.*, 1930, 126, 496-519.—In the introduction Hartmann is concerned with the present solutions for the special psychological problems of Korsakow's psychosis. For the fabrications he has a new point of view taken from Selz' psychology of thinking, namely the missing actualization of knowledge ("law of correction"). He then turns to the positive aspect of fabrication and finds in it a tendency of meaningful completion. His own experience with patients of this sort, who had to reproduce a story, resulted in interesting falsifications which he interprets as the effect of the pleasure principle in the form of "supplanting" (for instance, a divorced patient does not reproduce a passage in regard to divorce). Indifferent facts are preferred. The author discusses the problem whether memory follows the pleasure principle as such; Korsakow's psychosis permits us to examine the problem under the microscope. He explains that he does not intend to clear up completely the psychopathology of Korsakow's psychosis by means of this method of attack. The method takes hold only of one corner of the problem and leads to the point of view that every brain injury leads to primitive reactions. The core of the problem seems to lie in the relation of action to the sense of time (compare the article by the abstractor in the Störring Memorial Volume of the *Arch. f. d. ges. Psychol.*, 1930), because if one investigates memory in regard to action one arrives generally at a disturbance of anticipation, point of view and representation so that primitive tendencies have an easy

play on the basis of this "indifference" and appear differentiated from the central aspect of the person especially through this way of looking at it.—*S. Krauss* (Frankfurt a.M.).

2740. **Heller, T.** Über die Dementia infantilis. (Concerning infantile dementia.) *Zsch. f. Kinderforsch.*, 1930, 37, 661-667.—Heller discusses first the problem whether dementia praecoxissima as described by Sante de Sanctis is an early form of dementia praecox or whether we are dealing here with two different conditions. The author criticizes De Sanctis' interpretation because he includes under the term dementia praecoxissima several psychoneuroses of early childhood which end in dementia. As is known, the German investigators understand by dementia praecoxissima nothing but post-encephalitic conditions and forms of progressive feeble-mindedness. Already in 1907 Heller suggested the introduction of the term dementia infantilis for cases of this kind. Julius Zappert made further studies in 1921 and presented an interesting outline of the development of the disease. The following is of importance in this outline: (1) after normal development the disease starts in the third or fourth year; (2) increasing failure of educational influences in connection with increasing dementia; (3) the beginning of speech disturbances; (4) complete dementia without the facial expression of the imbecile. According to Heller's observations and Emil Redlich's investigations this is not schizophrenia but a process of regression whose origin is, of course, completely obscure. Heller concludes his article with the strongly emphasized demand that physicians and educators, who naturally depend absolutely upon each other, cooperate better than heretofore through relevant information. It is especially because medical and pedagogical art overlap in therapeutic pedagogy that such great scientific results were achieved.—*O. Seeling* (Berlin).

2741. **Henderson, D. K., & MacLachlan, S. H.** Alzheimer's disease. *J. Ment. Sci.*, 1930, 76, 646-661.—The experience of the authors has been that presbyophrenia and Alzheimer's disease cannot be differentiated, the former being merely a stage in the development of the latter. Histories, including post-mortem summary and histological examination, of two cases confirmed by autopsy are included, with reports of two other cases which clinically seem characteristic.—*L. M. Hatfield* (Canton, Ill.).

2742. **Herslaff, N. B.** Predisposing factors in pathological conditions. *Med. J. & Rec.*, 1931, 133, 31-34.—The doctrines of Freud, Adler, and Burrow emphasize particularly the latent factors of neurotic causation. There is need to consider many environmental changes which predispose one to the neuroses, such as the sudden loss of security, alterations of social status, or surprising vicissitudes in family or institutional life. In the present demand for guidance and welfare clinics, there is an obligation to scrutinize more closely the empirical facts, while keeping the theories somewhat in abeyance.—*R. C. Givler* (Tufts).

2743. Jancke, H. Die psychopathologische Methode in der normalen Psychologie. (The psychopathological method in normal psychology.) *Psychol. Rundschau*, 1931, 2, 362-373.—The author discusses the relationship of psychopathology to pure psychology. He does not hold that the former throws much light on the latter except as the two are clearly differentiated. Then legitimate psychology finds verifications in it for its theories and finds new problems for solution. A number of cases are cited and their value in throwing light on psychology is discussed. From a clearer analysis of the thought processes thus derived a contribution is also found for logic.—A. B. Herrig (Michigan Central State Teachers College).
2744. Keller, H. The advantage of making a mental survey of patients applying for orthopedic treatment. *Med. J. & Rec.*, 1930, 132, 445-449.—An account of differences in patients corresponding to the erythritic and kolytic temperaments, together with an analysis of the chief characteristics of aged patients, followed by hints as to diagnosis and treatment in the light of such information.—R. C. Givler (Tufts).
2745. Kuenzel, M. W. The hemoglobin indexes of 200 feeble-minded "children." *Tr. School Bull.*, 1931, 28, 11-15.—The cases studied included 150 boys and 50 girls, life ages 5 to 49 years, IQ's 11-91. The blood of healthy adults ranges from 80 to 105%. The median index for feeble-minded children is 75, the range 50 to 100; 55% had hemoglobin indexes below the normal range for average individuals.—E. M. Achilles (Columbia).
2746. Lake, G. B. Mental hygiene. *Med. J. & Rec.*, 1931, 133, 56-59.—A restatement of some of the best known pronouncements on this subject.—R. C. Givler (Tufts).
2747. Lord, J. R. "After-care" and other aspects of social service as an adjunct to mental treatment. *J. Ment. Sci.*, 1930, 76, 622-631.—After-care may be of an institutional nature, or it may be social and environmental. In the latter case the qualities of the social worker are quite distinct from those of the hospital visitor or the highly trained psychiatric social worker in that she must have special business ability if she is to place successfully her recently convalescent patient. Definite recommendations are made to local authorities for carrying out the provisions of the Mental Treatment Act of 1930. The author stresses the value of prophylactic measures through after-care, the work of the child-guidance social worker, and that of the public-assistance social worker in detecting and preventing mental break-downs among the poor.—L. M. Hatfield (Canton, Ill.).
2748. Loudet, O. La ansiedad simple, obsesiva y delirante en los penados. (Simple, obsessive, and hysterical anxiety in prisoners.) *Rev. de crimin. psiquiat. y med. leg.*, 1930, 17, 262-267.—(Soc. Sci. Abst. III: 6491).
2749. Luxenburger, H. Zur Frage der erblichen Stellung der Zwangsnurosen. (Concerning the question of the inheritance of compulsion neuroses.) *Allg. Zsch. f. Psychiat.*, 1930, 93, 260-263.—(Soc. Sci. Abst. III: 6507).
2750. Papurt, M. J. A study of the Woodworth psychoneurotic inventory with suggested revision. *J. Abn. & Soc. Psychol.*, 1930, 25, 335-352.—As a result of the work with the Woodworth Psychoneurotic Inventory, carried on at a psychopathic hospital and with patients already diagnosed as mentally diseased, certain significant conclusions concerning the Inventory were obtained. The average number of pathological answers for the various mental diseases ranged from 6 in Huntington's chorea to 48.6 in epileptic psychosis. The average number of pathological answers given for 50 female patients was 19.92; for 50 male patients it was 19.34. As a result of the study of the reactions of 100 male and female patients, five major weaknesses or faults of the inventory were noted. These were complex terminology, too lengthy a list of questions, too many questions having no bearing upon the diagnosis of emotional instability, arbitrary masculine form of test, duplication of content. The revision by the author was made to eliminate the five faults. It has been used in several psychological clinics and standardization on it is in progress.—C. H. Johnson (Boston Psychopathic Hospital).
2751. Partridge, G. E. Sociologic implications of a psychiatric problem. *Amer. Sociol. Soc. Papers*, 1930, 24, 282-284.—R. R. Willoughby (Clark).
2752. Peters, G. F. The therapeutic effect of assisted respiration in established cases of dementia praecox. *J. Ment. Sci.*, 1930, 76, 662-667.—Sylvester's method of artificial respiration with minor modifications was carried out for a quarter of an hour daily. The aim was to reinforce the patient's respiratory movements so as to eliminate carbon dioxide without the patient's "acidity" being at the same time increased by violent exertion on her part. Of the 12 cases dealt with, all of whom were in a severe or advanced stage, four showed great improvement, six showed slight but definite improvement, while two, hopeless from the start, did not benefit. Improvement was shown chiefly on the conative side rather than on the cognitive and affective. The treatment seemed to provide the first step towards the re-establishment of contact with social activity.—L. M. Hatfield (Canton, Ill.).
2753. Popenoe, P. Feeble-mindedness today. *J. Hered.*, 1930, 21, 421-431.—Uses several recent publications on feeble-mindedness, including *Social Control of the Mentally Deficient* by Davies, and four publications of the National Catholic Welfare Council, as departure for discussion of five eugenics questions concerning the feeble-minded. These are (1) How many feeble-minded persons are there in the community? (2) What is their fecundity—will they die out of their own accord, or are they perpetuating themselves? (3) What is the cause of their condi-

tion—how much of it is due to inheritance that cannot be easily changed? (4) Are they a valuable asset to the community, or more frequently a liability? (5) If the latter, what shall we do about it? The author's discussion leads to sterilization as the only practical, humane, and far-sighted policy for protecting deficient individuals, society, and posterity.—*B. S. Burks* (Pasadena).

2754. Schneider, K. Über primitiven Beziehungs-wahn. (Concerning primitive delusion of reference.) *Zsch. f. d. ges. Neur. & Psychiat.*, 1930, 127, 725-735.—Schneider demonstrates the nature of primitive delusions of reference with 3 cases of manic anxiety states. Mania with great anxiety and excitement suddenly turns into a psychosis with delusions of reference and persecution. Bodily exhaustion and strange environment (linguistic isolation, for instance, in emigrants) can contribute to its origin. The symptoms disappear rapidly; complete insight and correction follow. The delusion of reference is called "primitive" in view of the primitive reactions that appear; the higher stratum of personality is broken through and the instinctive basis appears. The term anxiety neurosis is avoided, since it has become traditional for anxious melancholias. As contrasted with the genuine delusion for which there is no insight the experiences of reference are understood here to be intelligible.—*S. Krauss* (Frankfurt a.M.).

2755. Smith, A. P. Some neuropsychiatric observations. *U. S. Vet. Bur. Med. Bull.*, 1931, 7, 141-142.—*C. M. Louttit* (Ohio).

2756. Storch, A. Die Welt der beginnenden Schizophrenie und die archäische Welt. Ein existential-analytischer Versuch. (The world of beginning schizophrenia and the archaic world. An existential-analytical essay.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1930, 127, 799-810.—Storch places the psychology of schizophrenia upon an entirely new basis. The essential thing for him is not the attempt to change the supposed fundamental functions but to consider the existence of the schizophrenic. His mental structure is regarded as a changed mode of being-in-the-world. His method is the analysis of existence (as with Kierkegaard and Jaspers); it is closely related to phenomenology (Husserl, Heidegger) and falls in line with philosophical anthropology. From this point of view the categories of genetics are insufficient, as for instance the term "regression," although biologically there is the fact of a more primitive system, yet the whole type of existence is changed. The normal person develops with a changeable horizon of experience in the world; for the sick person the horizon of experience is limited in regard to past and future. The objects meet the patients as if they had expressive characteristics and a significance for his own existence. In such cases the patient discovers new aspects of existence. In addition there is also the ambivalence of meanings (one suddenly becomes what one thinks of). During thinking, thoughts of the background and simultaneous thoughts are running along at the same

time; the thought is becoming concrete. Appearance and essence, name and person fall together inseparably (the image is as much as the self). Behind the objects there are supposed secret forces. Many things in this mode of existence remind one of the world of primitive man, although these worlds are not quite the same, because with the primitive man the magical is imbedded in life in historical continuity, while the sick person is torn out of it and experiences everywhere the threatening. His world, filled with illusions and hallucinations, is strangely without substance; the sick persons feel that their meaning of life is destroyed. Since the new relations are valid only for his own existence, the sick person is thrown out of the connections of his surroundings. The future is not experienced any longer as concrete self-realization, the destruction of the historical existence is expressed as the experience of the destruction of the world. In his new world the patient is not at home and he does not live in it as an acting individual.—*S. Krauss* (Frankfurt a.M.).

2757. Sullivan, H. S. Environmental factors in schizophrenia. *Med. J. & Rec.*, 1931, 133, 19-22.—While bodily constitution and certain physical disorders may hasten the precipitation of this malady, its primary cause is the failure to make the proper social adjustments in the period just following puberty. When the struggle to attain comfortable adult status is blocked, regression with its attendant dissociations may always be expected to follow.—*R. C. Givler* (Tufts).

2758. Walker, H. M., & Schauffler, M. C. The social adjustment of the feeble-minded; a group-thesis study of 898 feeble-minded individuals known to Cleveland social agencies, made by students in the School of Applied Social Sciences, Western Reserve University. Cleveland: Western Reserve Univ. Press, 1930. Pp. 220.—(Bibliographia Eugenica).

2759. Whitney, E. A. Prophylaxis in mental deficiency. *Med. J. & Rec.*, 1930, 132, 449-450.—The author advocates that "sentimentalism should be subordinated to practical methods in the prophylaxis of mental deficiency," and sexual sterilization is emphatically mentioned.—*R. C. Givler* (Tufts).

2760. Williams, T. A. Management of hyperemotionalism and states of anxiety. *Med. J. & Rec.*, 1930, 132, 435-439.—Hospital morale, often a by-product of the prevalent theories of mental disease in the hospital, has much to do with hastening or retarding recovery. Successful therapy in the anxiety neuroses depends upon fully facing, rather than disavowing, both the difficulty and its causes. Only by keeping the entire problem focal can deconditioning be successfully managed. Morbidity often results from letting the details fade into the margin of consciousness. Enlightenment should be the goal, not distraction or oblivion.—*R. C. Givler* (Tufts).

2761. Wood, L. F. The influence of intercurrent diseases upon psychoses. *U. S. Vet. Bur. Med. Bull.*, 1931, 7, 143-145.—Psychoses are influenced by inter-

current infection and in many cases are favorably influenced. Four cases are reported showing mental recovery following various infections.—*C. M. Louitt* (Ohio).

[See also abstracts 2656, 2684, 2692, 2787, 2793, 2794, 2805, 2813, 2828, 2844, 2905, 2920, 2925.]

SOCIAL FUNCTIONS OF THE INDIVIDUAL

2762. Akiba, T. The sociological significance of the prohibition and emancipation of sexual relations in Korea. *Shakaigaku Zasshi*, 1930, 70, 1-24. —(*Soc. Sci. Abst.* III: 6378).

2763. Alkema, D. B. Iets over magie. (Concerning magic.) *De Macedonier*, 1930, 34, 24-28. —(*Soc. Sci. Abst.* III: 3554).

2764. Allen, F. H. Mental attitudes of adults in a juvenile court. *J. Amer. Inst. Crim. Law & Crimin.*, 1930, 21, 201-211. —(*Soc. Sci. Abst.* III: 4852).

2765. [Anon.] Suicide among negroes in the United States. *Stat. Bull. Metropolitan Life Insur. Co.*, 1930, 11, 4-5. —(*Soc. Sci. Abst.* III: 6496).

2766. Back, A. Das mystische Erlebnis der Gotternähe bei der heiligen Theresia von Jesus. Eine religionspsychologische und religionsphilosophische Untersuchung. (The mystical experience of the nearness of God in St. Theresa of Jesus. A study in the psychology and philosophy of religion. (No. 24, *Abhandl. z. Phil. u. Psychol. d. Religion.*) Würzburg: Becker, 1930. Pp. viii + 112. M. 3.00.—If by mysticism in the narrow sense one means an immediate contact or union of the self with the "over-self," one must differentiate between the essential and the accidental. Ecstasy is accidental, the presence of God is essential. This mystical experience is to be distinguished from mere dwelling with God in thought and the mere representation of the presence of God. Since Theresa did not have an intuitive perception of God, her inner experience of the nearness of God is a synthetic image of immediate conscious experience, discursive thought and emotional expression. Theresa recognized four steps of increasing intensity in the approach of the soul to God. Her sober-mindedness and temperance saved her from the suspicion of hysteria.—*A. Römer* (Leipzig).

2767. Balthazard, V. Organisation de services d'anthropologie criminelle dans les prisons. (Organization of bureaus of criminal anthropology in prisons.) *Arch. di antrop. crimin.*, 1930, 50, 843-849. —Since the modern object of imprisonment is social preservation and criminal prophylaxis, the author recommends the establishment in prisons of laboratories of criminal anthropology for the purpose of studying the physical and mental differences between the various criminals and delinquents and recommending the treatment appropriate in each case.—*R. E. Schwarz* (U. S. V. B. Hospital, Oteen, N. C.).

2768. Bambarén, C. A., & Prada, L. V. Observaciones de clínica criminológica. (Observations of

pathological criminality.) *Bol. de crimin.*, 1930, 3, 207-218. —Four case histories of young male criminals discussed.—*J. W. Nagge* (Chicago).

2769. Bell, E. H. The development of a magic formula. *Scient. Mo.*, 1931, 32, 162-164. —A case is described in which the formula was observed as it grew up in a contemporary social group.—*J. F. Dashiell* (North Carolina).

2770. Bell, H. M. Measurement and improvement of ability to study. *J. Genet. Psychol.*, 1930, 38, 398-410. —21 advanced university students were requested to practice reading at least 30 minutes daily, emphasizing rapidity but also comprehension with a view to later summarizing. They were tested with the Thorndike Examination, Part III, administered four times at two-week intervals. Devices for maintaining interest included visible records of progress, instruction in study methods, and rapid-reading training practices. Conspicuous individual differences in reading ability were brought to light, the best students being three times as efficient as the poorest. The poorest students profited more by instruction and practice. The method of reading thoroughly at first appeared more efficient than skimming and then re-reading. In general, significant improvement in rapid reading was demonstrated.—*J. F. Dashiell* (North Carolina).

2771. Benjamin, C. H. Word painting. *Scient. Mo.*, 1931, 32, 355-361. —A study is made of the qualifying words used by various English and American writers of prose and poetry to determine the characteristics of their "color schemes."—*J. F. Dashiell* (North Carolina).

2772. Bernard, L. L. Schools of sociology. *Southwestern Pol. & Soc. Sci. Quar.*, 1930, 11, 117-134. —The psychological school has developed from collective psychology toward behaviorism. The behavioristic school is now dominant, strongly supported by the cultural sociology school, which must be distinguished from cultural anthropology. Human ecology has developed from the old anthropogeography into a functional behavioristic analysis of the collective adjustment process, while social psychology has increasingly espoused the task of a behavioristic analysis of the adjustment of the individual to his social environment, which results in the socialization of the personality.—(*Soc. Sci. Abst.* III: 4758).

2773. Böschenstein, —. Zur amerikanischen Religionspsychologie. (Concerning the American psychology of religion.) *Psychol. Rundschau*, 1931, 2, 373-378. —The author agrees with Coe that the American contribution to the psychology of religion has not received the recognition in Europe that it deserves. He holds that this may be due to an indefiniteness that is characteristic of the pragmatic psychology in general. James' contribution in *Varieties of Religious Experience* is an outstanding contribution that acted as a spur to American interest in the field. The article discusses James' and Pratt's analyses of conversion and belief, and DeBuy's types

of personality in relationship to choice of creed and form of worship.—*A. B. Herrig* (Michigan Central State Teachers College).

2774. Brachfeld, O. Das Androgynenproblem in der Gegenwart. (The problem of androgyny at the present.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 17, 425-431.—Discussion of the question of androgyny by poets and authors has pointed the way to a thorough psychological investigation of the problem. Generalization is impossible at present—each case must be considered individually.—*H. Marshall* (Stanford).

2775. Brennecke, H. Die Erforschung der Persönlichkeit des Gefangenens: ihre Methode und ihre Auswirkung im Strafvollzug. (Study of the prisoner's personality: methods and results.) *Monatssch. f. Krimpsychol. u. Strafrechtsref.*, 1930, 21, 655-668.—(Soc. Sci. Abst. III: 6483).

2776. Bührig, W. Aus der graphologischen Praxis. (From the practice of graphology.) *Psychol. Rundschau*, 1931, 2, 351-352.—The author gives an illustration of an unusual type of handwriting and makes an analysis of it.—*A. B. Herrig* (Michigan Central State Teachers College).

2777. Bullock, R. W. A study of the occupational choices of negro high school boys. *Crisis*, 1930, 37, 301-322.—(Soc. Sci. Abst. III: 4396).

2778. Calipanini, R. L'indirizzo psico-sociologico in Carlo Cattaneo e in Roberto Ardigo. (The psycho-sociologic tendency in Charles Cattaneo and in Robert Ardigo.) *Logos*, 1930, 13, 239-280.—The two authors, who probably differ in temperament and attainments, have the same positivist orientation. They agree in the humanistic and sociologic interpretation of psychic reality, which Cattaneo outlines in a series of intuitions and Ardigo treats thoroughly with vigorous conception throughout his philosophic system. In the development of his theories Ardigo probably borrows in part from the thought of Cattaneo. In taking the same fact on which the reflections of Cattaneo have dwelt with penetration, Ardigo succeeds in dissolving the two antithetical terms "individual" and "society," to the credit of the Italian psycho-sociologic school.—*V. D'Agostino* (Turin).

2779. Carrara, M. A proposito del trattamento del delinquente per tendenza. (The treatment of the delinquent from propensity.) *Arch. di antrop. crimin.*, 1930, 50, 739-754.—The reply of the author to Ottolenghi's objections to the definition and treatment of the delinquent from predisposition as advocated by the positivist school and the new criminal code. While Ottolenghi regards this type of criminal as fully responsible for his actions and more dangerous than the others, and therefore deserving of double punishment, the positivist school and the new criminal code deny his responsibility and advocate that he be deprived of liberty in order to watch and cure him.—*R. E. Schwarz* (U. S. V. B. Hospital, Oteen, N. C.).

2780. Carrara, M. Trattamento individualizzato di criminali in un penitenziario (Untermassfeld). (Individualized treatment of criminals in a penitentiary (Untermassfeld).) *Arch. di antrop. crimin.*, 1930, 50, 901-926.—The author describes the individualized treatment of criminals at the Untermassfeld penitentiary introduced by Krebs, director of that institution, and the good results obtained thereby. The prisoners on being committed to the institution are assigned to the first grade, and those who distinguish themselves in their work and behavior are promoted to the second grade and finally to the third grade, which enjoys complete liberty and the privilege of self-government. The constitution, voted and proclaimed in an assembly, has as its first article that privileges attained impose obligations. The assembly appoints a chief who serves as intermediary between the inmates and the prison authorities. The chief is assisted by a committee. All inmates are paid salaries for their work, which is adapted to their ability and which they can change if the reasons therefor are satisfactory to the chief and his councillors. The penitentiary is located in ideal surroundings and the inmates devote themselves to industrial, artistic and agricultural work, and are given all the educational facilities conducive to their moral elevation.—*R. E. Schwarz* (U. S. V. B. Hospital, Oteen, N. C.)

2781. Cooper, J. M. Origin and early history of religion. *Ecclesiast. Rev.*, 1930, 83, 36-60.—(Soc. Sci. Abst. III: 3555).

2782. Densmore, F. Peculiarities in the singing of the American Indians. *Amer. Anthropol.*, 1930, 32, 651-660.—Peculiarities in the singing of American Indians may be classified as (1) racial, (2) regional, (3) classificatory, and (4) personal. Among racial peculiarities are singing without words, spacing the accents unevenly in song, ability to dispense with rests, and pulsing of the voice on prolonged tones. Regional peculiarities depend upon the materials available for the manufacture of musical instruments, whether singing goes on indoors or out of doors, the size of musical assemblies, altitude, etc. Certain classes of songs involve peculiarities. Game songs are explosive in style; songs of grief introduce crying; songs about animals present some characteristic of the animals. Medical songs are sung softly, while those of the shaman or juggler are noisy and startling. Personal peculiarities include such things as singing portions of songs with the lips closed, or practicing a vibrato note. There are peculiarities in almost every voice, because no musician learns by rote, vocal technique is not standardized and "the Indians as a race are highly individualized."—*C. M. Disserens* (Cincinnati).

2783. DeVries, L. P. The nature of poetic literature. Seattle: Univ. Washington Press, 1930. Pp. ix + 248. \$1.50.—Poetic literature is the record of a type of experience. Poetic work is dependent upon creative imagination and unusual vitality of response, which is responsible for the emotional character of poetry. The generally empathetic nature of

poetry is stressed and the author develops at length the importance of the uses of words in this field.—*E. B. Heim* (Provo, Utah).

2784. Farnsworth, P. R., & Behner, A. A note on the attitude of social conformity. *J. Soc. Psychol.*, 1931, 2, 126-128.—The effect of a social group on individual judgments of weights was tested for a group of 43 students. The results showed slightly less extreme judgments when in the group rather than alone, confirming Allport's results which he held indicated an attitude of "social conformity."—*E. B. Newman* (Bryn Mawr).

2785. Gargas, S. Le suicide aux Pays-Bas. (Suicide in the Netherlands.) *Arch. di antrop. crim.*, 1930, 50, 673-688.—The author reviews the statistics of suicides in the Netherlands during the period 1900-1925 as compared with other European countries. In the Netherlands the frequency of suicides was greater in the country than in the city, most of the suicides in the country being people over 80 years old, incapable of work. In the Netherlands, as in other countries, more men than women commit suicide, widowers and widows occupying the first rank, divorced individuals second rank, and the married suicides coming last. The number of suicides increases with age. Suicide is most frequent in the commercial, industrial, and intellectual professions, and is more frequent among Protestants than among Catholics. Suicide among prisoners is very rare in the Netherlands. The most frequent motives for committing suicide are hypochondria and financial difficulties; and among the means employed, hanging preponderates, followed in order by drowning, shooting, poisoning, and asphyxia.—*R. E. Schwarz* (U. S. V. B. Hospital, Oteen, N. C.).

2786. Garth, T. E. *Race psychology*. New York: Whittlesey House (McGraw-Hill), 1931. Pp. xiv + 200. \$2.50.—Author's purpose "is to bring to light what is known experimentally about racial heredity in mental traits." Emphasis is placed on the comparisons of performances in tests by full-blood groups of *Ss* and groups with different degrees of mixed blood, in so far as these degrees can be ascertained. Problems of race psychology are practically identified with problems of race differences. Different conceptions of 'race' are considered, together with changes in the historical development of the conceptions, and environmental influences upon race characters are indicated. Method, as a transferable "way of going about a thing," a way of solving life's problems, is distinguished from specific learnings upon which it depends. It is considered to exist among different races of man to the extent that the "requisite particular learnings" have taken place. Certain cultures therefore make for greater efficiency by tests and other measures of ability irrespective of possible equalities in native capacities. Studies in the heredity of mental traits are reviewed, and while "most psychologists believe that such studies go to prove the inheritance of mental traits" the author concludes, after also considering environmental effects, that "one of the most promising arguments

for believing in racial mental differences falls." A brief historical survey is made of the experimental studies of race differences in mental traits, and modern tendencies are examined. Data are summarized in tables which give results by various individual investigators, and the conceptions and theories of intelligence are briefly reviewed. The conclusion follows, that the existing data on the comparative intelligence of races "can be easily explained by the influence of nurture and of selection." Considerations of needed euthenic measures toward Indians and negroes are urged in connection with the presentation of relevant data from tests of school children and from the army mental tests. A chapter is given to racial esthetics, not the mere practical aspects of man's activity but "his impulse for the satisfaction of the esthetic." How have the different peoples revealed these impulses in their respective art, whether in personal decorations or in objective creations? In their art impulses strictly racial lines can be even less sharply drawn than in intelligence tests. The data are taken chiefly from anthropology, but chapters giving data of color preferences (chiefly the author's data) and of tests of musical talent (the Seashore test) follow. In the former cases P. E. units after the Fullerton-Cattell method, are used, with white assumed to be at the zero-point (not wholly consistently, as the author points out). Since the children were classified by school grade, the grade-level is used as a crude scale to find what changes occur in racial color-preference from grade to grade. The obtained ranking of the racial groups according to their ability to "discriminate differences in feeling for all the colors" follows: the American Indian, the white, the Negro, the Japanese, the Filipino, the Mexican. Color preferences of the different race-groups are shown in tables and graphs in relation to school grades. The differences found are attributed to "nurture factors" only. The musical tests failed to indicate any consistent race differences. Reviewing the literature on personality and on work curves (related to but not identical with fatigue curves) in race studies, Garth again finds scant evidence of innate race characters; indeed, as he develops later, the tests are yet unsatisfactory and race itself is a somewhat indefinite conception. Rather marked similarity in inter-racial community of ideas, as revealed chiefly by the "continuous association" and the Kent-Rosanoff free association method, indicate the obvious conclusion that "one's ideas are in large measure copies of his environment." In the proportion of words relating to animals, wearing apparel, proper names, verbs, etc., high correlations (.83 to .91), were found between different racial groups of whites, negroes, and Indians. The author stresses both the environmental influences (and probable innate racial equality) and effects of selection of traits, operating differentially in various race groups.—*J. Peterson* (Peabody).

2787. Giarrusso, G. La neurastenia in medicina legale militare. (Neurasthenia in military legal medicine.) *Arch. di antrop. crim.*, 1930, 50, 689-708.—The author expounds the method and clinical cri-

terion for reaching the diagnosis of neurasthenia and then evaluating the diagnosed syndrome under the guidance of juridical fundamentals and of the ethical exigencies of military legal medicine.—*R. E. Schwarz* (U. S. V. B. Hospital, Oteen, N. C.).

2788. Glässmer, E. *Geschlechtsfragen des Weibes*. (Sexual problems of woman.) Stuttgart: Enke, 1930. Pp. 43. M. 1.60.—Sexuality can be traced back to the primitive form of the sexual instinct. This instinct can be recognized in puberty in its isolated components: (1) sexual curiosity, (2) exhibition motive (instinctive aim, the attraction of the opposite sex), (3) the reproductive impulse (instinctive aim, union), yet unknown to the young girl. Opposed to these instinctive forces there is in woman a particularly strongly developed inhibitory impulse, sexual shame and refusal. Out of the distinct strong development of the one or the other of these partial impulses there results the changing picture of female sexuality, as it is individually presented: the curious, the coquette, the young bluestocking, the delicate, the idealist, the timid, the coy. In the sexuality of the mature woman a further inhibiting factor enters—the frequent necessity of avoiding conception. The sexuality of the woman is not weaker than that of the man, it is only different. While male sexuality corresponds directly to physical stimuli, the sexuality of the female corresponds much more to psychic stimuli. Each sex probably desires in the other those characteristics which it is forced to seek from the hereditary biological basis of nature.—*E. Glässmer* (Heidelberg).

2789. Gotz, B. *Vatermord und kultische Vater-tötung*. (Parricide and the killing of the father as a cult.) *Monatssch. f. Krimpsychol. u. Strafrechts-ref.*, 1930, 21, 618-619.—(Soc. Sci. Abst. III: 6487).

2790. Harding, T. S. *Food prejudices*. *Med. J. & Rec.*, 1931, 133, 67-70.—Numerous illustrations of such prejudices are cited from a wide geographical range, and an analysis is given in terms of four types: (1) those that depend upon racial or religious taboo, (2) those that depend upon the food habits of an individual family or the close friends of that family, (3) those that depend upon associations of a personal nature, and (4) those that depend upon sapidity pure and simple.—*R. C. Givler* (Tufts).

2791. Higgins, H. H. *Influencing behavior through speech*. Boston: Expression, 1930. Pp. ix + 346. \$2.50.—This is an "attempt to restate the theory of public speaking in the light of the most recent findings of social psychologists regarding human nature." The book is designed for students and Part I is devoted to the psychological treatment. The author considers the basis of human nature, the problem of attention, a number of differing personality traits which must be appealed to and the technique of influencing persons with such traits. Part II develops "speechcraft."—*E. B. Heim* (Provo, Utah).

2792. Howell, L. D. The relations of economic, social and educational advancement of farmers to their membership in organizations. *Oklahoma Agric. Exper. Sta.*, 1929, Bull. 185. Pp. 54.—(Soc. Sci. Abst. III: 6427).

2793. Hulbert, H. S. Probate psychiatry—a neuro-psychiatric examination of testator from the psychiatric view point. *Illinois Law Rev.*, 1930, 25, 288-295.—(Soc. Sci. Abst. III: 4604).

2794. Karpman, B. Notes on the psychopathology of crime. *Amer. Sociol. Soc. Papers*, 1930, 24, 284-285.—*R. R. Willoughby* (Clark).

2795. Kempf, E. J. Probable origin of man's belief in sympathetic magic and taboo. *Med. J. & Rec.*, 1931, 133, 22-27; 59-62; 118-120.—Belief in magic is allied with "psychotherapeutic efforts to make easier the stresses of physiological functioning in a social environment which tends to become increasingly complicated, requiring higher cerebral integrations for successful adaptations which are usually far beyond the cerebral capacity of the lower half of the human race." Back of the commonly recognized phenomena of the association of ideas by similarity or contiguity, lies a semi-conscious emotional adjustment to the unceasing predicaments of life; and whatever helps to make this internal adjustment becomes thenceforth a symbol of success, endowed with potency throughout the physical environment: this is how the merely qualitative often acquires dynamic, quantitative status. The service which even imaginations have rendered in a purely subjective solution becomes memorable, and a magical charm is simply an object to which one has become emotionally (and uncritically) attached. The belief in the potency of sympathetic magic depends upon conditioning of a special kind that involves the vital organ reflexes functioning at a subconscious level. What is called a superstition is then apparently the final effect of such autonomic excitations upon the conscious centers; the brain thus finds whatever outlet it can for visceral tensions that have no concrete or overt manner of expressing themselves. Superstition is the result of a puzzled brain giving crude first aid to an anxious gut. Quite by accident of their presence do amulets, talismans, and priests become vested with magical powers, just as does the ghost (the persistently recurring image of the dead). Regarding the question how "beliefs stimulate or depress the functioning of our vital organs and thereby influence the quantity and quality of the flow of vital energy," Kempf holds that both magical objects and beliefs are so closely connected with the emotions that the appearance of any one of the three indicates the imminence of the others. It is apparently the function of a ritual to make the linkages of them clearly conscious. Sympathetic imitation and antipathetic inhibition fill the practices of primitive magic, reflexly stimulating the vital functions with which all primitive ideas have already become allied. Charms are connected with the thing to be sanctioned, taboos with the thing to be avoided. By social conditioning, the former are

used to stimulate impulses, feelings, and ideas which are desirable and effective in a social situation, the latter to inhibit undesirable impulses, feelings, and ideas; and the things which eventually get called good and evil were originally what was needed for self-assurance and self-protection respectively. Socially, magic has its chief justification as a persuasion to courage, and may thus be regarded as an early step in the civilizing process.—R. C. Givler (Tufts).

2796. Kolinski, M. Die Musik der Primitivstämme auf Malakka und ihre Beziehungen zur samoanischen Musik. (The music of primitive peoples in Malacca, and its relation to Samoan music.) *Anthropos*, 1930, 25, 585-648.—(Soc. Sci. Abst. III: 3587).

2797. Kolle, K. Der Fall Völler. Ein Beitrag zur Psychopathologie des Mörders und zur Strafrechtsreform. (The Völler case. A contribution to the psychopathology of homicide and to penal reform.) *Monatssch. f. Krimpsychol. u. Strafrechtsref.*, 1930, 21, 226-236.—(Soc. Sci. Abst. III: 6490).

2798. Kotsovsky, D. Sexualleben und Alter. (Sex life and age.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 17, 410-412.—No direct parallel has been established between aging and the functioning of the sex organs. Weakening of the sex function with age is not to be explained by the disappearance of the internal secretion of the gonads, but by the total sum of age changes of all the organs of internal secretion. Since age symptoms appear first in the nervous system, it is suggested that the cause of aging lies in the whole complicated system of neuro-chemical correlation.—H. Marshall (Stanford).

2799. Krueger, E. T., & Reckless, W. C. Social psychology. New York: Longmans, 1931. Pp. vii + 578. \$3.00.—“Human nature is not something that exists at birth. . . . It is rather an acquired nature which represents the modeling of the plastic, unorganized part of man's native equipment. The modeling of this plastic original nature takes place in social experiences and results in the development of forms of behavior which we may term social habits, attitudes, sentiments, self-control and conscious purposes. . . . The term *human nature* should be applied to those general types of traits or qualities which man gains in social interaction and which he neither has at birth nor shares with the animals below him.” Dewey's conflict theory of emotion is followed in preference to other current theories, and this results in a very suggestive treatment of attitudes and sentiments which has not before been possible. Mead's analysis of human speech activities is used in the discussion of “the social significance of language” (Chapter 2), and this is further developed in relation to the extensive research which has been done in this field. The implications of “social contacts,” of “social objects and social definitions” are developed in Chapters 3 and 4. Full use is here made of the literature of the anthropologists. The authors summarize the outstanding psychological

theories and knowledge of human motivation (Chapter 6) and find the material inadequate from their point of view. The subsequent development is based upon Faris' suggestion of “fundamental wishes” (Chapter 7). Considerable attention is given to the social function of imagination (Chapter 8), since this form of activity is primarily wishful. A discussion of “the nature of attitudes” (Chapters 9 and 10) includes analyses and illustrations from case material, followed by a careful evaluation of the various techniques for the measurement of attitudes. “The nature of personality” (Chapter 11) emphasizes the changing rôle of the individual in the various situations of life. Social factors are here weighted more highly than physical or physiological factors, though these are not ignored. Allport's classification of traits is followed in the discussion of “traits of personality” (Chapter 12). The book closes with a discussion of social adjustment (Chapter 13), making full use of the findings of both the psychiatrists and the sociologists. Three appendices are given for use as study material. The first includes a series of observations of the social adjustments of small children. The second presents the life history of a college student. The third consists of questions and bibliography to be used with each chapter.—W. McTeer (Detroit City College).

2800. Lattes, L. A proposito del delinquente per tendenza. (The delinquent from propensity.) *Arch. di antrop. crimin.*, 1930, 50, 927.—A discourse on the various interpretations of this type of criminal given in penal codes and by medical and anthropological criminologists. Some identify this class of criminals with Lombroso's born criminals, and others define them as delinquents endowed with the capacity to plan, understand, choose the motives and to control themselves, and therefore responsible for their actions.—R. E. Schwarz (U. S. V. B. Hospital, Oteen, N. C.).

2801. Lombroso-Ferrero, G. I delitti femminili e le nuove professioni della donna. (Feminine crimes and women's new professions.) *Arch. di antrop. crimin.*, 1930, 50, 839-842.—In the light of a recent brutal murder of a rich business woman by another woman, a friend of hers engaged in finance, the author discusses the crimes committed by women in former days and the recent tendency of women toward masculine crimes caused by their having invaded masculine professions. The author warns women especially against the trade of financier, in which they are not prudent enough to indulge, and in which it is easy to lose one's head over losses incurred.—R. E. Schwarz (U. S. V. B. Hospital, Oteen, N. C.).

2802. Luther, F. Jugendpsychologie und Jugendstrafhaftspflege mit Vorschlägen zu Reformen im Jugendgerichtsverfahren und Jugendstrafvollzug. (The psychology of juveniles and the treatment of juvenile delinquents with proposals for reforms in juvenile court procedure and the penal treatment of juveniles.) *Zsch. f. d. ges. Strafrechtswiss.*, 1930, 51, 18-53.—(Soc. Sci. Abst. III: 4860).

2803. Marcuse, M. *Die Ehe.* (Marriage.) Berlin: Marcus & Weber, 1927. Pp. 621. M. 18.—A summary of our knowledge about marriage from the standpoints of its physiology, psychology, hygiene, and eugenics.—H. Marshall (Stanford).

2804. Martial, R. *Application des données de la psychologie à l'immigration.* (The application of psychology to immigration.) *Outre-Mer*, 1930, 2, 150-162.—(Soc. Sci. Abst. III: 4793).

2805. McComb, S., & Worcester, E. *Body, mind and spirit.* Boston: Marshall Jones, 1931. Pp. xix + 367.—A discussion of the relation of psychopathology to religion similar to the authors' *Religion and Medicine*. There are chapters dealing with the subconscious mind, the psychoneuroses and their physicians, typical cases, sleep and insomnia, dreams, psychoses of mood, suggestion, four curses of mankind (tuberculosis, cancer, syphilis and alcoholism), the energies of men, the healing deeds of Jesus, the reality and power of prayer, the laws and methods of prayer, and spiritual healing and the Christian ministry.—N. L. Munn (Pittsburgh).

2806. Mezger, E. *Psychoanalyse und strafrechtliche Schuld.* (Psychoanalysis and criminal responsibility.) *Schweiz. Zsch. f. Strafrecht.*, 1930, 44, 185-193.—(Soc. Sci. Abst. III: 6492).

2807. Morf, G. *Der Symbolismus im Werke Joseph Conrads.* (Symbolism in the writings of Joseph Conrad.) *Psychol. Rundschau*, 1931, 2, 356-361.—The author analyzes the literary productions of Conrad from a psychological standpoint. He sees in them the life of Conrad from a Polish youth to an English captain, then to an English litterateur. He illustrates from Conrad's works, revealing the fact that the author expresses his own emotional conflicts, his ambitions and his disappointments in the characters he delineates.—A. B. Herrig (Michigan Central State Teachers College).

2808. Mueller, G. *Value and evolution of beauty.* *Monist*, 1931, 41, 52-66.—General esthetics is concerned with two problems: (1) the meaning, and (2) the value of beauty; and may therefore be divided into a phenomenological part, analysis, and a philosophical part, the didactic of beauty, corresponding respectively to the accounts of the philosophizing artist and the esthetic philosopher. From the first standpoint things are beautiful when their experience eliminates all demands, involves a sense of sufficiency, produces absorption in the esthetic object or esthetic unity, and imparts sense of security. This is sometimes mistaken for "escape from reality" but more justly considered is an unconditional affirmation of reality, as the perfection of immediate experience. Beauty is ultimately form or idea which takes on content in the various arts, which the author classifies in three groups: (1) dance and music, (2) spatial arts, (3) literature. A survey of the general characteristics of these groups leads the author to conclude that "the content of beauty (of esthetic form) is always the life of the soul embodied in a neutral surface." The achievement of beauty de-

realizes the individual life of objects. In the second part of his paper the author examines and rejects estheticism, objectivism, and the ethical and religious attitudes, as bases for a philosophy of art. Esthetic values are independent values, though the attitudes criticized may extend the scope, mold the content, and improve the technique, of works in which beauty is realized.—C. M. Diserens (Cincinnati).

2809. Munz, R. *Zu einem religionspsychologischen Fragment des Poseidonios bei Strabon.* (On a religious psychology fragment of Poseidonios in Strabo.) *Arch. f. Religionswiss.*, 1929, 27, 355-366.—A. Römer (Leipzig).

2810. Payne, C. S. *The mispronunciation of words.* *J. Genet. Psychol.*, 1930, 38, 427-444.—Analysis of the oral responses of 400 children to tachistoscopic presentations of words and phrases suggests these conclusions: (1) that incorrect answers that appear to be due to inability in visual discrimination of letters and words are often merely mispronunciations, the child being able to recall the stimulus details correctly if asked; (2) that incorrect answers thought to be due to left-handedness or -eyedness or visual disorders may often be due to factors characteristic of the normal learning process.—J. F. Dashiell (North Carolina).

2811. Petrova, A. E. *Eine Mordtat in der Pubertätsperiode vollbracht.* (A murder committed during the period of puberty.) *Monatsch. f. Krim-psychol. u. Strafrechtsref.*, 1930, 21, 592-607.—(Soc. Sci. Abst. III: 6493).

2812. Pettazzoni, R. *La confessione dei peccati nelle antiche religioni americane.* (Confession of sins in the early American religions.) *Atti d. XXII Cong. Int. d. Amer., Roma Settembre 1926*, 1928, 2, 277-288.—(Soc. Sci. Abst. III: 3562).

2813. Pilcher, E. *Relation of mental disease to crime.* *J. Amer. Inst. Crim. Law & Crimin.*, 1930, 21, 212-246.—(Soc. Sci. Abst. III: 4862).

2814. Poelchau, H. *Kriminalstatistik der Jugendlichen 1927 und 1928.* (Juvenile criminal statistics 1927 and 1928.) *Zsch. f. d. ges. Strafrechtswiss.*, 1930, 51, 84-115.—(Soc. Sci. Abst. III: 4863).

2815. Probst, J. H. *Traces de parler magique dans l'Arabe dialectal moghrébin.* (Traces of magic jargon in Maghribi Arabic.) *Rev. int. de sociol.*, 1930, 38, 321-325.—(Soc. Sci. Abst. III: 3583).

2816. H., R. *Kriminalpsychologische Praxis. Zürcher Vorbedacht und deutsche Überlegung.* (The practice of criminal psychology. Zurich pre-meditation and German deliberation.) *Psychol. Rundschau*, 1931, 2, 379-381.—This is a discussion of the recent trial of Ros in Zurich for murder, and explains the discrimination between the meaning attached to the words "murder" and "manslaughter" in the Swiss courts. It cites other cases to show the exact meaning of "premeditated" in dealing with such cases.—A. B. Herrig (Michigan Central State Teachers College).

2817. Reitman, B. L. *The second oldest profession.* New York: Vanguard, 1931. Pp. xx + 266. \$3.75.—The psychology, economics, sociology, history, and ecology of the pimp, illustrated with case material from the author's underworld experience as a hobo, radical propagandist, physician and friend of both racketeers and police officials.—R. R. Wiloughby (Clark).
2818. Rollins, W. A. *The effect of immigration on the birth rate of the natives.* *J. Hered.*, 1930, 21, 387-402.—As immigration to the United States has increased since the early nineteenth century, the birth rate among native stocks has decreased. In sections of the country where the percentage of white immigrants and their children is highest, the fertility among native whites is the lowest. Author concedes that the percentage of people living in urban communities is closely associated with proportion of immigrants and fertility of natives, but believes this fact to be another instance of the effect of immigration on birth rate, the movement of population into the cities affecting urban birth rates.—B. S. Burks (Pasadena).
2819. Rosinger, K. E. *A realistic study of the foundations of aesthetics.* *Monist*, 1931, 41, 37-51.—This essay is an application of the principles of Whitehead's philosophy to certain fundamental problems of esthetics. Are objective standards of beauty rational? Is there such a thing as an "objective" or "subjective" position? Why are certain artistic objects beautiful in one age and not in another? Is a personal judgment of beauty valid? The author, after defining his terminology, taken from Whitehead, decides that the difficulty in defining a beautiful object comes from a failure to recognize the complexity of the Platonic universal. The eternal object, beauty, is complex. Subjectively an object is beautiful if the necessary eternal objects which constitute its objectivity emerge to relevance on a given occasion and in a personal setting. Objects may be beautiful at one epoch and not in another because the entire backgrounds differ. Beauty is not in persons, not in objects, but in an unique event, the emergence of one of Whitehead's eternal objects as the focus of the entire social order.—C. M. Diserens (Cincinnati).
2820. Rüegger, E. *Sprachwissenschaft und Psychologie.* (The science of language and psychology.) *Psychol. Rundschau*, 2, 1931, 339-342.—An answer, with further analysis, to the article by David-Schwarz on *The Psychology of Mode*. The author does not wholly agree with this article in holding that certain modes are disappearing, and takes issue with this and other points made in the article.—A. B. Herrig (Michigan Central State Teachers College).
2821. Schäfer, P. *Das Schuldbewusstsein in den Confessiones des heiligen Augustinus. Eine religionspsychologische Studie.* (The consciousness of guilt in the Confessions of St. Augustine. A study in religious psychology.) (No. 25, *Abhandl. z. Phil. u. Psychol. d. Religion.*) Würzburg: Becker, 1930. Pp. xv + 144. M. 3.50.—The author believes that the same experience is described in the early writings of Augustine as a conversion to the way of wisdom and in the Confessions as a conversion to Catholic Christianity. The rigorous bishop from his high position undertakes a self-examination in which he over-emphasizes his life of sin. There is a tendency toward self-depreciation and a feeling of inferiority which make the Confessions largely negative in character. This tendency depends upon a psychological inclination toward and a gift for introspection. This is not an abnormal phenomenon in Augustine, for with pardon there is a parallel refinement of the consciousness of guilt.—A. Römer (Leipzig).
2822. Schmalhausen, S. D. *Freud and the sexual revolution.* *J. Abn. & Soc. Psychol.*, 1930, 25, 299-306.—Freud represents the missing link between the scientific and the sexual revolution. Science says: experiment freely. The new psychoanalytic candor says: cast out repression and concealment. The sexual revolution symbolizes the coalescence of the Copernican and the Freudian approaches to nature, envisaged and probed in its most intimate and sacred contexts—an attitude toward reality that is skeptical and experimental, unashamed and curious, objective and sincere. Sex love, in Freudian and Watsonian revaluation, promises to make life more radiant and free.—C. H. Johnson (Boston Psychopathic Hospital).
2823. Schroeder, T. *Witchcraft and the erotic life.* *J. Nerv. & Ment. Dis.*, 1930, 72, 640-651.—(Soc. Sci. Abst. III: 5153).
2824. Schulman, H. M. *Crime prevention and the public.* *J. Educ. Sociol.*, 1930, 4, 69-80.—(Soc. Sci. Abst. III: 6494).
2825. Seelig, E. *Der "Vatermorder" Franz S.* (The parricide Franz S.) *Monatssch. f. Krimpsychoch. u. Strafrechtsref.*, 1930, 21, 607-613.—(Soc. Sci. Abst. III: 6495).
2826. Skorpil, R. *Das graphologische Profil.* (The graphological profile.) *Psychol. Rundschau*, 1931, 2, 329-335.—Author believes that graphology has value for analysis of specific characteristics, but not for judgment of personality as a whole. He sees the need for a measurement technic which will establish a profile of a person's handwriting that can be used for identification and interpretation, much as is possible with finger-prints. In developing this idea he evaluates the present contributions in the field of graphology.—A. B. Herrig (Michigan Central State Teachers College).
2827. Spearman, C. *Creative mind.* New York: Appleton, 1931. Pp. xii + 162. \$2.00.—The author's central theme deals with a description and analysis of the mechanisms underlying creative mental activity in man. "Genius" and imagination are rejected as tenable theories of creativity, as well as the explanations of Gestalt, behaviorism and psy-

choanalysis. Three qualitative and fundamental principles of processes are held to determine mental creativity: (1) the principle of experience or apprehension; (2) the principle of relations; (3) the principle of correlates, in order of increasing potency. The principle of correlates or "the presenting of any character together with any relation or relative character tends to evoke immediately a knowing of the correlative character," is posited as indispensable for the highest degree of creativeness which the human mind can attain, though this principle gains its existence and prominence only through the functioning of the other two more elementary principles or tendencies. Supplementing these three qualitative principles are five quantitative principles: (1) the principle of the constant total output of every mind; (2) the law of retentivity; (3) the law of fatigue; (4) the principle of the will partly controlling the energy of the mind; (5) the law of primordial potencies. This concise explanation of knowing is termed "noogenesis" and is similar in meaning to what is sometimes characterized as "insight" or "intuition." The principal achievements of pictorial art in truth, beauty, emotionality, exaggeration, self-expression are emphasized with respect both to quantitative and qualitative noogenetic laws, where the greatest creative ability of the artist results from "transposing relations from their original fundamentals to others, thereby creating (mentally) the correlative fundamentals." This principle is shown to be equally prominent in the plastic arts, music, literary art, great scientific inventions, mechanical problems, scientific hypotheses, and scientific discoveries. A number of illustrations are given. Many forms of adaptive behavior, in situations including either psychological or physical material or both interwoven, demand creative mental activity for their adequate solution where once again the process of educating correlates is supreme. The ability of the mind to create new content by the transposing of an old relation (educing correlates) also extends to the realm of unreality in the case of delusions, hallucinations, trance, dreams, and the like. In concluding, the author warns that our sensory perceptions may be deceptive and that further evidence should be sought in the field of genetic psychology on the ground that the services rendered by physiology and physical science have proven inadequate. The greatest of all mental creations is the perception of the whole universe, as we ordinarily perceive it, which is directly dependent on the functioning of the three noogenetic principles described, especially on the process of educating correlates. Sixteen plates, six figures, and index are included.—J. W. H. Ross (Clark).

2828. Stephens, S. J. Probate psychiatry—examination of testamentary capacity by a psychiatrist as a subscribing witness. *Illinois Law Rev.*, 1930, 25, 276-287.—(Soc. Sci. Abst. III: 4608).

2829. Stoke, S. M., & West, E. D. Sex differences in conversational interests. *J. Soc. Psychol.*, 1931, 2, 120-126.—Records kept over a period of nearly a

year of the topics of conversation among men and women college students during the evening at their respective lodgings were analyzed to discover differences of interests. Records were obtained from 498 "bull sessions" of 2230 topics discussed. It was found that the women discussed more topics per session than men. There were greater differences between sorority and dormitory women, however, than between sorority women and fraternity men in the frequencies with which most topics occurred. Men are slightly more interested in sports, women in personalities, cultural topics and social conventions. It seems unlikely that any very marked native difference affects the results.—E. B. Newman (Bryn Mawr).

2830. Tinker, M. A. Physiological psychology of reading. *Psychol. Bull.*, 1931, 28, 81-98.—A review of 110 titles in the experimental (not essentially physiological) psychology of reading, divided under the four headings: legibility of print, eye movements in reading, visual apprehension, perception in reading.—J. F. Dashiell (North Carolina).

2831. Tu, H. T. C. The effects of different arrangements of the Chinese language upon speed and comprehension of silent reading. *J. Genet. Psychol.*, 1930, 38, 321-337.—To compare the efficiency of Chinese reading matter printed in vertical and in horizontal arrangement, three kinds of reading material in the two arrangements were studied tachistoscopically. Chinese nonsense characters and Chinese sense characters were more quickly (but not especially more accurately) read by Chinese students in the vertical arrangement. Geometrical figures, however, were more quickly (but not more accurately) read by both Chinese and American subjects in horizontal arrangement.—J. F. Dashiell (North Carolina).

2832. Uggè, A. A proposito di tipo antropologico e di scelta matrimoniale. (Racial types and matrimonial selection.) *Gior. d. econ.*, 1929, 44, 883-893.—(Soc. Sci. Abst. III: 4777).

2833. Van der Leeuw, G. Der Tempel des Leibes. Band 1: "In den Himmel ist ein Tanz . . ." Über die religiöse Bedeutung des Tanzes und des Festzuges. (The temple of the body. Vol. I: "In heaven there is a dance . . ." The religious significance of the dance and the festive procession.) (Trans. by C. Van Weel.) Munich: Dornverlag, G. Ullmann, 1931. Pp. 64.—The author takes as his starting point the unity of human life which primitive man possessed, and which has today been lost; only a faint echo of the original religious dance is found in the parade and the procession. Comparisons in the psychology of religion.—A. Römer (Leipzig).

2834. Vaughan, W. F. An experimental study in political prejudice. *J. Abn. & Soc. Psychol.*, 1930, 25, 268-274.—In a total of 762 letters appearing in the Boston Herald-Traveler in October, 1928, in which people stated why they were going to vote either for Herbert Hoover or Alfred E. Smith, not

one gave the least evidence of a mind free from prejudice. These prospective voters made up their minds without due respect for facts. They were seduced by prejudice to betray reason.—C. H. Johnson (Boston Psychopathic Hospital).

2835. Villavicencio, V. M. *El caso de un delincuente pederasta.* (Case of a delinquent pederast.) *Bol. de crimin.*, 1930, 3, 235-250.—Case history of a recurring case of pederasty.—J. W. Nagge (Chicago).

2836. Visher, S. S. Starred scientists. *J. Higher Educ.*, 1931, 2, 78-80.—Comparison is made with Cattell's study of the education of one thousand scientists who were selected in 1903 as the most meritorious in their respective sciences and who were starred in the first edition of *American Men of Science*. The present similar study is of younger scientists starred in 1921 and 1927. In general, the tendency among the institutions represented by the first group was a decline of percentage throughout with a gradual increase of individuals from the mid-West and Western institutions.—R. A. Brotemarkle (Pennsylvania).

2837. Von Hentig, H. *Drei Vatermord-Fälle.* (Three cases of parricide.) *Monatssch. f. Krimpsychochol. u. Strafrechtsref.*, 21, 613-618.—(Soc. Sci. Abst. III: 6488).

2838. Vorwahl, H. *Sexualpsychologisches aus der französischen Revolution.* (Data for sex psychology drawn from the French Revolution.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 17, 442-446.—It has recently been suggested that an international league be formed which shall have for its purpose the alleviation of sexual needs in an accepted and standardized fashion. While this league is a manifestation of the tendency of the machine age, the suggestion is otherwise not a new one. The author quotes various authors of the time of the French Revolution—Mannlich, Diderot, the Marquis de Sade, Galliot, and others—regarding the promiscuity and licence which obtained following that war. The memoirs and records of that period—some of them now suppressed—furnish a mass of "human documents" which are a real contribution to sex psychology.—H. Marshall (Stanford).

2839. Wang, C. K. A., & Thurstone, L. L. The measurement of social attitudes. Scale No. 21, Forms A, B. Attitude toward birth control. Chicago: Univ. Chicago Press, 1930.—40 statements regarding birth control (each form containing 20) are to be rated in terms of strong agreement, agreement, and disagreement by a double check, check, and cross respectively. Scale score is determined by the median scale value of all statements double checked. Instructions for using the scale, with an interpretation of the scores, are included.—J. W. H. Ross (Clark).

2840. Weeks, A. D. Mental differences and future society. *Scient. Mo.*, 1931, 32, 156-162.—Paternalism, compounded of humanitarianism and

intelligent exploitation, is forecasted.—J. F. Dashiell (North Carolina).

2841. Weinberg, M. Zur Problematik der Ehe. (Problems of matrimony.) *Neue Generation*, 1930, 26, 183-187.—(Soc. Sci. Abst. III: 4779).

2842. Wieser, R. Erwiderung zur sogenannten experimentellen Graphologie von R. Saudek. (Comments on the so-called experimental graphology of R. Saudek.) *Zsch. f. angew. Psychol.*, 1931, 38, 174-176.—The author takes exception to an article by Saudek in the preceding volume of the *Zeitschrift für angewandte Psychologie*, claiming that he fails consistently to give adequate descriptions of the procedures he uses or to give his results in quantitative form. Since the logic of the author cannot be fully discerned from any of his writings, Saudek's work lacks the claim to sober scientific consideration which we find in Klages and Meyer.—G. W. Hartmann (Berlin).

2843. Wood, A. E. A study of arrests in Detroit, 1913-1919. *J. Amer. Instit. Crim. Law & Crimin.*, 1930, 21, 168-200.—(Soc. Sci. Abst. III: 4866).

2844. Woodard, J. W. Psychological aspects of the question of moral responsibility. *J. Amer. Instit. Crim. Law & Crimin.*, 1930, 21, 267-296.—(Soc. Sci. Abst. III: 4615).

[See also abstracts 2721, 2748, 2751, 2758, 2806, 2872, 2880, 2883, 2884, 2893, 2895, 2904.]

INDUSTRIAL AND PERSONNEL PROBLEMS

2845. Anderieth, R. Die Lehrlingsprüfung bei den Österreichischen Bundesbahnen. (Apprentice testing on the Austrian railroads.) *Psychotechn. Zsch.*, 1930, 5, 29-42; 137-156.—The testing procedure as carried out with apprentices in four general shops of the Austrian Federal Railroads is described. Since only about one-fifth the total number of applicants can be employed, and since the number of persons to be tested at a given time is great, the company felt the necessity of developing a system for employment selection by the group testing method. The system adopted and described here has been tried out for 6 years and is successful. The tests used are for group administration, and are so arranged as to give information about an individual's abilities from several angles, furnishing not only an index of an individual's standing in a group but also insight about his peculiarities, such as exactness, care, and other tendencies, which usually are discovered through personal interviews. The advantage of such a testing method over an interview method is that the records are permanent and consequently subject to later re-examination. The entire examination is divided into three main sections: (1) physical measurements; (2) aptitude measurements; (3) general intelligence testing. There are about 18 different tests, all of which are described in detail. They deal with such abilities as drawing, reasoning, space thinking, engineering designing, copying patterns, cutting out pat-

terms, wire bending, technical understanding, etc.—*C. Burri* (Chicago).

2846. [Anon.] *Die Ursachen der im Jahre 1928 eingetretenen Betriebsunfälle.* (The causes of industrial accidents, 1928.) *Wirtsch. u. Stat.*, 1930, 10, 731-732.—(Soc. Sci. Abst. III: 4418).

2847. Barnett, H. R. *Man management in chain stores.* New York: Harper, 1931. Pp. 262. \$3.50.—*W. S. Hunter* (Clark).

2848. Bingham, W. V. *Personnel management as a career.* *Person. Service Bull.*, 1931, 7, No. 3. Pp. 5.—A picture of what the personnel specialists do. Includes such things as interviewing applicants, hiring, placing employees, follow-up, records of progress, training, health. A career in personnel management is rather closely interwoven with industrial management. Vacancies are usually filled from other persons in the organization. A few months' actual practical experience as an employee are desirable. Lists of standard books which might well be read by a person contemplating a personnel management career.—*H. E. Burtt* (Ohio State).

2849. Boyle, D. L. *Safety organization in a small mine.* *Mining Cong. J.*, 1930, 16, 859-860.—(Soc. Sci. Abst. III: 5943).

2850. Della Valle, G. *Alla ricerca delle attitudini nei giovani.* (Concerning research about aptitudes in young people.) *Riv. ped.*, 1930, 23, 1-12.—This is a kind of history of psychotechnics. Upon study the task, particularly in regard to professional orientation, recalls the numerous contributions in congresses, reviews and institutes by those who follow this branch of applied psychology. The author draws attention to the new book of Ponzo, *Guide de Psychotechnique Appliquée à l'Orientation Professionnelle* (Turin: Paravia, 1929) and tries to give evidence of exigencies which suggest the application of "the scientific organization of work" to pedagogy.—*V. D'Agostino* (Turin).

2851. Dickinson, J. G. *The accident-prone employee.* *Aera*, 1930, 21, 550-554.—(Soc. Sci. Abst. III: 4413).

2852. Dolenz, —. *Über die Bewegungsform bei der Arbeit an Drehkurbeln.* (The form of movement during work with turning cranks.) *Neue psychol. Stud.*, 1930, 5, 253-316.—A principle of harmonious experience of work can be demonstrated in the form of movement. A man responds to the anatomically or physiologically conditioned differences of exertion at the various points of such a path of motion with a corresponding constellation of innervations and incorporates the movement in a unitary whole. Very little of this appears in the experience of the worker; it is only the registration of the movements that uncovers these and other delicate facts.—*O. Klemm* (Leipzig).

2853. Edgar, T. W. *Industrial disability versus pain intensity.* *Med. J. & Rec.*, 1931, 133, 157-160.—To detect malingering and insure justice in the compensation for industrial injuries, diagnoses for

determining the probable intensity of pain as well as the extent of disablement produced are suggested under the following heads: appearance of the patient, especially of his face; patient's description of the pain, and how persistent and consistent reference to it is; bearing of the complaint on the patient's tolerance of mechanically stimulated pain; the blood pressure elevation taken under reliable conditions; rise of pulse rate under passive manipulation; motor reflexes in the injured region; pupillary reactions; the reflex vaso-motor signs of pallor; syncope, and sweating; and the uniformity of pain in similar injuries.—*R. C. Givler* (Tufts).

2854. Efimoff, W., Sarch, M., & Krasnikowa, J. *Übung und Ermüdung der Arbeiter bei Fliessarbeit.* (Practice and fatigue of workers on conveyors.) *Zsch. f. angew. Psychol.*, 1931, 38, 120-135.—The fatigue of attention caused by sewing parts of caps in accordance with the requirements of a transmission system was studied by means of the Bourdon test. The letter o was cancelled for four periods daily on four successive days, each test period being two minutes long. The figures indicated that fatigue began to exercise its effect on the second day despite the masking influence of practice. After the first day errors were consistently at a maximum at the end of the morning and afternoon sessions. The authors considered their test rather sensitive, since the speed of cancellation in the second minute of each period was slightly but consistently lower than in the first. Tremometric measures with 27 workers showed further an inverse correlation between the number of contacts and the number of cancelled letters. It is considered significant that the respiratory quotient (ratio of expired carbon dioxide to the mass of absorbed oxygen per minute) was more than 1.0 in 35% of the cases. This is viewed as evidence for nervous strain, since in physical work such coefficients occur only in races. On the basis of this investigation, rest pauses of 5 minutes after every 55 minutes of work were instituted in this Moscow factory, instead of 10 minutes after 110 minutes, which had previously been the rule because of technical requirements.—*G. W. Hartmann* (Berlin).

2855. Gragg, M. T. *Testing advertising.* *Harvard Business Rev.*, 1930, 9, 111-123.—(Soc. Sci. Abst. III: 4310).

2856. Guilford, J. P. *Psychological yardsticks for economic values.* *Amer. Econ. Rev.*, 1930, 20, 664-672.—(Soc. Sci. Abst. III: 4052).

2857. Hathaway, K. *Methods study. The principles and technique of analyzing work methods.* *Bull. Taylor Soc.*, 1930, 15, 210-242.—(Soc. Sci. Abst. III: 5941).

2858. Krantz, —. *Die Unfallgefährdung weiblicher Arbeiter.* (The risk of accident to female employees.) *Reichsarbeitsbl.*, 1930, 10, 153-157.—(Soc. Sci. Abst. III: 5945).

2859. Metcalf, H. C. [Ed.] *Business leadership.* New York: Pitman, 1931. Pp. 357. \$3.00.—A symposium of lectures at the Bureau of Personnel Ad-

ministration. A. E. Wiggam, The biology of leadership. Leaders arise by natural selection; W. S. Moher, Leadership in a democracy. Two kinds based on control and on merit. Both involve sociability, organizing ability, etc.; H. A. Overstreet, The need for an engineer type of leadership. Historically we have had the following types of leaders: hunter, warrior, priest, politician, seer, glorified tool-maker or business leader and now the human engineer; M. P. Follett, Leader and expert. Leadership should create larger purposes; W. H. Cowley, Three distinctions in the study of leaders. The leader is going somewhere and has persuaded others to follow him, while the headman has merely attained headship. The traits of the individual must be considered in relation to the traits required by the situation. Leadership is experimentally demonstrated to be specific rather than general; C. R. Mann, What does a leader do? Emphasis on leader's actions rather than his traits; H. S. Person, Leadership as a response to environment a field for research. Suggests study of childhood leaderships. Differences in the groups led are significant; J. D. Houser, Evaluating leadership through measurement of morale. A set of 18 elements such as adequacy of pay, freedom from worry, etc., were administered by paired comparison technique as to which is "more important in your job," and also as to "which your company does best." The correlation between the two resulting orders is an indication of morale or how well employees feel they are being treated; A. D. Sheffield, The chairman as leader of group process. Effort should be to promote discussion rather than debate. The chairman should lead members to take an evaluating rather than an espousing attitude; H. C. Metcalf, The part of imagination in leadership. Imagination develops hypotheses and assists in administration and policy application; J. H. Williams, The budget as a medium of executive leadership. Going over budget gives leader and department head a common purpose; R. B. Wolf, Recording group accomplishment. Three methods are possible—quantity, quality and cost of work done; O. Tead, The leader as coordinator. Coordination may be horizontal or vertical. It requires common knowledge, preferably through common experience, common stake in the results, agreement on purposes, approximate sense of equality. Formal action, conference, records of action and written decisions are desirable; C. S. Yoakum, How the capacity for leadership is discovered. "Time is ripe" and "great man" theories. Heredity contributes. Four traits are essential: originality, tact, energy and self control. Tests of aggressiveness and of social intelligence have proved suggestive; O. S. Beyer, Sources of potential leaders in industry. Industrial leadership is of the cooperative rather than the military type. Leaders may be discovered in the ranks by giving them more chance to lead, i.e., participation in management; M. P. Follett, Some discrepancies in leadership theory and practice. Leader gives fewer orders, forestalls trouble, and gets his desires carried out because workers wish to do things in the right way. For

leadership in a particular situation we should go to the man with the best knowledge of that situation. Common purpose and example help; E. D. Smith, Developing minor executives. Development of leadership cannot be standardized. Responsibility, examples, conference, experience on related jobs and some courses of study aid in developing minor executives; W. V. Bingham, Developing leadership in business. Discover leaders by providing opportunities to lead, e.g., in factory committees, and then try to develop further desirable traits one at a time; E. E. McNary, The need for a new type of salesman leadership. It is impossible to teach a man how to sell. We teach him to sell specific things; M. L. Cooke, The development of leaders from the ranks of labor. Too much standardization irons out individualities which it may be desirable to capitalize; H. C. Metcalf, Training for the new conception of leadership. Personality in leadership may be developed through responsibility and example; H. C. Elliott, Management's responsibility for employees' growth and satisfaction. Trend toward the democratic type of leadership; W. R. Gray, Preparing college graduates for industrial leadership. Mere executive training does not necessarily develop leadership. It is developed in the actual industrial situation; T. V. Smith, The leader as teacher and philosopher; H. A. Overstreet, Leadership and a philosophy of life.—H. E. Burtt (Ohio State).

2860. Sayers, R. R. Connection between physical condition and liability to accidents of mental miners. *U. S. Bur. Mines*, 1930, No. 6367. Pp. 25.—(Soc. Sci. Abst. III: 5946).

2861. Streiff, S. Das Gefühl der Unsicherheit als Ursache von Arbeitsunfällen. (The feeling of uncertainty as a cause of industrial accidents.) *Psychol. Rundschau*, 1931, 2, 335-339.—The significant work that has been done in avoiding industrial accidents has been largely in the improvement of machinery, through instruction in caution, etc., but a further work needs to be done on the psychological side in a study of the type that has a tendency to have accidents. Many workmen have anxieties due to a lack of complete understanding of the mechanism of the machine, and anxieties are a potent factor in accidents. Knowledge of and confidence in his machine is essential, and it becomes the duty of the employer to establish this feeling of security.—A. B. Herrig (Michigan Central State Teachers College).

2862. Ulbricht, O. Über die optimalen Bedingungen bei der Arbeit an Drehkurbeln. (The optimal conditions of work with turning cranks.) *Neue psychol. Stud.*, 1930, 5, 229-252.—The present data of the physiology of work for such optimal conditions are completed according to psychological methods. The psychological optima do not always occur in the place where a minimum of calories is used but follow their own laws; they appear wherever the essential characteristics of experience, size of movement, speed and resistance fuse best into a whole.—O. Klemm (Leipzig).

2863. Wilsdorf, —. Griffstudien an der Spulmaschine. (Studies of manual operations at spindles.) *Neue psychol. Stud.*, 1930, 5, 317-346.—The "horizontal" method of work is superior to the "vertical" one since it permits the hand movements to fuse more easily into one whole. With the help of the time magnifying lens (*Zeitlupe*) a new and time-saving way of tying the weaver's knot is discovered.—*O. Klemm* (Leipzig).

[See also abstracts 2618, 2777, 2962.]

CHILDHOOD AND ADOLESCENCE

2864. Archer, L. R. Home care for dependent children in the District of Columbia. *Soc. Sci. Monog.*, 1931, 1, 10-17.—Concerned with the mothers' pensions. Of the cases making application the majority of those approved were previously known to other agencies while those rejected show a much lower percentage. There is no specified allowance for each child but the allowance is arbitrarily worked out in each case. 95% of these budgets were deficient when compared with those allowed by the Washington Standard Budget.—*E. B. Heim* (Provo, Utah).

2865. Bankes, W. J. Your complete life. Boston: Christopher, 1931. Pp. 74. \$1.25.—The purpose is to outline development periods from infancy to old age and show characteristic reactions of these various periods. Designed to help teachers and parents, etc. Technical aspects omitted.—*E. B. Heim* (Provo, Utah).

2866. Bruckner, A. Die Selbsteinschätzung der Jugendlichen. (The adolescent's self-evaluation.) *Vjsch. f. Jugendk.*, 1931, 1, 37-49.—In connection with a more comprehensive investigation dealing with student opinion, in which students were asked to rate their classmates with reference to certain characteristics, self-ratings on intelligence were obtained from 113 of the participants. These ratings agreed fairly closely with the ratings of teachers and classmates. Such being the case, the author holds that a similar method would be useful in personality studies.—*R. H. Waters* (Arkansas).

2867. Carmichael, A. M. The behavior of six-year-old children when called upon to account for past irregularities. *J. Genet. Psychol.*, 1930, 38, 352-360.—The author collected answers made by children when called to account for irregularities of behavior, and classified them into nine varieties of intention or condition. The conclusion was drawn that children of this age show as a rule insight into such situations; and helpful practical points are suggested.—*J. F. Dashiell* (North Carolina).

2868. Dayton, N. A. Correlation between intelligence and physical condition in retarded school children. *Med. J. & Rec.*, 1930, 132, 222-224.—The result of a complete psychiatric examination of 14,176 children demonstrated "a significantly negative correlation between the number of physical defects observed and the degree of intelligence; that is,

larger numbers of physical defects appear to be associated with the lower intelligence quotient groupings, and the smaller number of defects with the higher levels of intelligence."—*R. C. Givler* (Tufts).

2869. Deardorff, N. R. Research in the field of child welfare since the war. *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1930, 151, 195-208.—(Soc. Sci. Abst. III: 4918).

2870. Ezekiel, L. F. Changes in egocentricity of nursery school children. *Child Development*, 1931, 2, 74-75.—"Egocentricity was defined as the attempt of a child to make himself the center of an activity. It was found that a child expresses his egocentric behavior in three ways: by the type of play—alone or with others—by his method of retaining toys which another child wants and by his methods of gaining attention from other children and from adults. The information was obtained by a quantitative record of the distribution of play activities." Data are presented for four subjects. "It was found that those children who were dominantly egocentric on entrance into a new social situation make few significant changes during the first three months, but the unaggressive children become more egocentric in their play, changing from the unaggressive to the aggressive. A positive correlation was obtained between the age of the child on entering a new social situation and the type of egocentricity." No information is given as to definite age, home background, or nature of supervision while in the directed activities of the school.—*W. McTeer* (Detroit City College).

2871. G., F. Das "Anstaltskind." (The institution child.) *Psychol. Rundschau*, 1931, 2, 382-384.—A criticism of children's homes and the wrong attitudes toward the world and work that are there acquired. The remedial effect of work as stimulating self-respect is discussed. The author cites a case of a child undesirably conditioned to meet life issues.—*A. B. Herrig* (Michigan Central State Teachers College).

2872. Freistadt-Lederer, A. Gespräche mit einem jugendlichen Neurotiker. (Conversation with a neurotic youth.) *Psychol. Rundschau*, 1931, 2, 348-351.—A record of a 21-year-old youth who from childhood has had the habit of stealing. Father hated figures in the child's early life, home training has been undesirable, the early years dating back to the war. The case seems to be one of finding satisfaction in a symbol of early desires, unsatisfied desires finding compensation in theft.—*A. B. Herrig* (Michigan Central State Teachers College).

2873. Guilford, R. B., & Worcester, D. A. A comparative study of the only and non-only child. *J. Genet. Psychol.*, 1930, 38, 411-426.—21 only children and 141 others of grade 8 were studied in respect to fifteen different traits. The only child was found to be superior in occupational status of the father, in school marks, and in health attitudes and habits. In "efficiency record" for extra-curricular activities he was equal to the non-only child. In all

the eleven personality items of a rating scale he scored higher.—*J. F. Dashiell* (North Carolina).

2874. Harter, G. L. Overt trial and error in the problem solving of preschool children. *J. Genet. Psychol.*, 1930, 38, 361-372.—Three non-verbal problems (an obstacle peg test, a canal box test, and a pulley test) were given to children to study their methods of attack. Considerable overt trial and error appeared; the successful children tended to be older chronologically and mentally; in spite of varying difficulty of the three tests, individual differences in performance on them were similar.—*J. F. Dashiell* (North Carolina).

2875. Hartwell, S. W. *Fifty-five "bad" boys*. New York: Knopf, 1931. Pp. xvii + 359. \$3.50.—The body of the book is composed of the case histories of 55 boys with whom psychotherapeutic treatment was initiated by the author during five months at the Judge Baker Foundation. In the first three chapters the author states the principles guiding his approach to the problems of children. Included in these are the classification of the types of thinking used in connection with child problems and a description of the four depths of rapport disseminated by the author in his own personal contacts with them. There is also a series of short descriptions of technique, with specific emphasis on danger points. The last three chapters include social and therapeutic summaries of the cases. 43 of the 55 cases are estimated as relative successes, 8 show no change, and 4 were made worse. The author gives in detail the correlation of the depth of rapport with therapeutic results, which indicates a strong positive relationship between success and the attainment of the depth of emotional relationship desired. A foreword is contributed by William Healy.—*R. R. Willoughby Clark*.

2876. Hatt, E. A comparative study of measurements and qualitative ratings of nursery school children. *Child Development*, 1931, 2, 1-29.—This study was made in order to determine how closely the composite picture obtained with the Merrill-Palmer "biogram" agrees with qualitative judgments of adults who are well acquainted with the children under consideration. The Merrill-Palmer biogram gives in terms of percentiles, a graphic presentation of the child's position with reference to twenty-nine traits (including six anthropometric measures, three measures of intelligence, one of drawing ability, one of personality with five major sub-heads, four measures of food intake, and nine measures of various forms of activity. Judgments as to general "desirability" or "undesirability" were made on 43 children by 39 staff members and graduate students. Of these the ten most desirable (D group) and the ten least desirable (U group) were picked out for comparative study in reference to the biograms. "The trait that differentiated the two groups most was 'effective energy'... The D children were distinctly superior also in body weight, intelligence, and four personality items—mental effectiveness, emotional control, ease of social adjustment, and skill in

work and play." The D group were also superior in outdoor activity and dispatch in eating lunch, while the U group had more regular bed hours. A weighting scheme was devised in order to summarize the biogram in a single arithmetical value. This weighting was done in terms of the degree of separation between the D and the U groups. The ρ correlation between the rank order of the 43 children as determined by the biogram and by the judgments of the adults was .82.—*W. McTeer* (Detroit City College).

2877. Herring, A., & Koch, H. L. A study of some factors influencing the interest span of preschool children. *J. Genet. Psychol.*, 1930, 38, 249-279.—Forty 2- and forty 4-year-old children were observed during an hour of free play with six simple toys provided them; and their interests were noted as to frequency of change and as to duration. The duration was dependent upon the type of toy and upon age, increasing with the latter; the power of a toy to attract attention is not an index of its power to hold it; no significant relationships were found between the interest span and such factors as sex, time of day, type of toy, or intelligence.—*J. F. Dashiell* (North Carolina).

2878. Hockett, R. M. [Ed.] *Teacher's guide to child development*. *U. S. Office Educ. Bull.*, 1930, No. 26. Pp. 195.—This handbook was prepared from the reports of teachers' experiences and contributions of specialists by the California Curriculum Commission. It aims to give informal suggestions on the development of activity programs for the kindergarten-primary level. Many case studies of already successful projects are used in the development of the main thesis, the "child-centered school."—*C. M. Louitt* (Ohio).

2879. Hunt, N. M. Factors influencing play of the preschool child. *Soc. Sci. Monog.*, 1931, 1, 18-26.—The subjects were 26 children (14 boys, 12 girls) at the Washington Child Research Center of Washington, D. C., from Sept., 1929, to May, 1930. The ages ranged from 2 to 4 years. Motion-picture samplings of the morning outdoor play activity were recorded over fifty-one days. The pictures were analyzed and the children classified. It was found that personality, age and nursery school experience influence the play and that intelligence, number of children in a family, sex and nutritional condition are of little importance.—*E. B. Heim* (Provo, Utah).

2880. Knauber, A. J. A study of the art ability found in very young children. *Child Development*, 1931, 2, 66-71.—Schools were chosen where the children had never been given any formal art instruction. 33 nursery, 20 kindergarten, 51 first grade, 12 second grade and 9 third grade children were the subjects in this experiment. Paper was supplied to these various grades for five weeks and the drawings which were made were collected and tabulated. Following this an art program was given in each class once a week by the author, and the drawings that were made during this period were also collected and tabulated. "(1) The proportion of those showing talent is not more than one in thirteen. (2) There is

a great difference even in two-year-old children as to their interest and ability to draw. (3) The subject matter of interest to the nursery children touches all the things which are new and interesting to them without regard for pattern." The older groups "seem to be more interested in drawing the things for which they have learned the pattern.... (4) . . . The stimulation was very successful in creating an interest and in developing the child's talent along natural lines. (5) It can not be concluded that one might select those with talent at this early age until more time has elapsed in which to follow the development of these children. It is suggested, however, that proper stimulation toward creative activity would produce more and better trained artists and also a people versed in the appreciation of beauty."—W. McTeer (Detroit City College).

2881. Langsdorf, E. H. *The pre-school child.* Cincinnati: Nat. Fed. Temple Sisterhoods, 1930. Pp. viii + 140. \$50.—This outline, prepared for use of study groups, lays particular emphasis upon the necessity for parents to revise old-world standards of family life in the light of modern scientific knowledge. It is intended especially for Jewish parents and therefore includes discussions of religious and racial problems of the Jews. There is an extensive bibliography of books recommended for study.—M. P. Montgomery (Faribault, Minn.).

2882. Leal, M. A. *Personality traits and maturing in children of normal IQ.* *J. Educ. Res.*, 1931, 23, 198-209.—About 4,000 children from grades 4-12 at New Britain, Conn., were divided into the classes immature, maturing and mature. Seventeen personality traits, such as impatience with restrictions, co-operation, gregariousness, etc., were rated by the teachers. The results were studied with regard to age and grade, IQ, and sex. The results show that the personality traits studied appear with different emphasis in the three stages of maturing of the child. Certain sex differences are evident.—S. W. Fernberger (Pennsylvania).

2883. Leitner, H. *Psychologie jugendlicher Religiosität innerhalb des deutschen Methodismus.* (Psychology of the adolescent religion in German Methodism.) München: Beck, 1930. Pp. 142. M. 7.00.—This book presents a picture of the religious world of young Methodists worked out in its smallest details and based on psychological analysis. The method was to present to the subjects religious sentences the mode of experiencing which they had to describe. The religious-ethical attitude is one of puritanical ascetic austerity. In order to achieve such a life the young person wages a battle which has a deeply stirring effect. The resistance against the worldly mind with all its temptations and the work on one's own self appear in all individual and social ethical questions that are discussed here. The power in the collective mind of tradition stands out very clearly; a very vigorous community life trains the young people in responsibility; in confessing outside their circle they also test the strength of their convictions. With a joy that is animated by their

faith they help each other in all difficulties. Not unfrequently these young people move between a permanent self-depreciation and a shade of pride with which they look upon themselves as the "saved" in contrast to the "not saved." Scruples of masturbation assume a large place since they are discussed frequently.—S. Krauss (Frankfurt a.M.).

2884. Leitner, H. *Psychologie jugendlicher Religiosität innerhalb des deutschen Methodismus.* (The psychology of adolescent religion in German Methodism.) *Vjsch. f. Jugendk.*, 1931, 1, 49-55.—This is a review of a more comprehensive publication on the same topic by the author (see V: 2883).—R. H. Waters (Arkansas).

2885. Leonard, M. J. *A study of the motion picture as a factor in the life of 42 girls from subadequate families.* *Soc. Sci. Monog.*, 1931, 1, 27-33.—Girls of 14 to 16 years from families known to the Associated Charities of Washington, D. C., were selected. A questionnaire was used and the results show that few pictures are remembered and there remains a question as to whether the movies have a definite effect on the character of the girls.—E. B. Heim (Provo, Utah).

2886. Lorber, A. *Das gehasste Kind.* (The hated child.) *Vjsch. f. Jugendk.*, 1931, 1, 64-67.—A boy with auditory defects, who was also illegitimate and unwisely treated by parents and associates, becomes a problem in school. Therapy based on Adlerian concepts was successful.—R. H. Waters (Arkansas).

2887. Mohr, G. J., & Bartelme, P. *Mental and physical development of children prematurely born.* (Preliminary report on mental development.) *Amer. J. Dis. Child.*, 1930, 40, 1000-1015.—113 white children were studied and compared with 40 of their full-term siblings. 17 sets of twins and 7 surviving members of twin births were included in the group. No markedly significant differences were found.—(Bibliographia Eugenica).

2888. Müller, C. V. *Experimentelle Untersuchungen über kindliche Schlussprozesse mit besonderer Berücksichtigung der Vorgänge der Repräsentation. Schluss.* (Experimental investigations of logical inferences in children with special consideration of the processes of representation. Conclusion.) *Arch. f. d. ges. Psychol.*, 1931, 79, 1-166.—This is the second half of the investigation (see V: 2509). The syllogisms that were used here contained class relations and hypothetical, disjunctive, and categorical causal relations. When definite concepts (instead of letter symbols) were used in the latter group, the frequency of the "representative" inferences declined from 100% to 50% during the age levels of 7 to 17 years. 20 references.—K. F. Muensinger (Colorado).

2889. Ødegaard, Ø. *Organisasjonen av den psykiatriske barneforsorg i Amerika.* (Organization of psychiatric child care in America.) *Tidsskr. f. d. norske lægeforening*, 1931, 51, 292-298.—Brief exposition of the work and organization of psychiatric and child guidance clinics in the U. S., based

upon 2½ years of study in this country by the writer, with suggestions for the establishment of similar institutions in Norway.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

2890. Plechaty, D. A preliminary form of an objective scale for measuring developmental age in grade-school girls. *Soc. Sci. Monog.*, 1931, 1, 42-44.—Developmental age is defined as "the progressively increasing maturity of behavior which shows itself in the child's changing interests and in his whole behavior." A list of separate items concerning reading preferences, play, attitudes, etc., was given to 60 girls in grades three to eight. The percentage marking each item was then found. When a large percentage from the fifth to the eighth grade checked an item it was considered mature; when a large percentage from the lower grades marked an item it was considered immature; the rest were thrown out. Mature and immature items were then paired and when the test was given one item was to be marked in each pair. The test contained ninety pairs of items; it showed a validity of .82 using chronological age as criterion, and a reliability of .89 by the method of split halves.—*E. B. Heim* (Provo, Utah).

2891. Pratt, K. C. Note on the relation of temperature and humidity to the activity of young infants. *J. Genet. Psychol.*, 1930, 38, 480-484.—Shifts of bodily position as recorded by a stabilimeter and polygraph were observed under temperature variations between 74° and 88° F. and under humidity variations. Increase in temperature produced a slight decrease in total amount of bodily shifting, but the relation of activity to humidity was not clear.—*J. F. Dashiell* (North Carolina).

2892. Prentiss, S. W., & Jones, M. C. The observation of food habits in young children. *Childhood Educ.*, 1930 (Sept.).—Daily records of nursery school children were kept under the headings: time of beginning meal; time of ending; foods refused; foods returned; seconds; appetite; motor skill. Figures show that older children refuse food less often and take seconds more frequently than younger. One in ten children loses dessert by returning food. Since they thus miss an important part of the meal, the policy was changed and candy offered as an incentive to completion of the whole meal. The day of the week seems to have no relation to the appetite. Vegetables are least liked. Half an hour is adequate time for a meal.—*M. P. Montgomery* (Faribault, Minn.).

2893. Römer, A. Musik und Religion. (Zur Erlebnisfähigkeit des Primärers.) (Music and religion. The experiential capacity of primary pupils.) *Zsch. f. Religionspsychol.*, 1930, No. 4, 324-384.—Selections of music were played to a class of pupils who were fairly musical, and then the subjects wrote a report. A study was then made to determine whether these reports referred to individual experiences, and second, whether the experiences referred to could be attributed to the group, and which as ideational experiences could be looked upon as numi-

nous. The individual reports reveal the formal side of the musical sense, personal interests, real adjustment of the content of experience (reference and comparison, e.g., nature, struggle, separation, expectation, sorrow). The question whether one can draw conclusions concerning the religious life is treated first from the point of view of the "shock" complex, second from the point of view of van der Leeuw's research. (*Zsch. f. Religionspsychol.*, 2, No. 2). Then follows the religio-psychological characterization on the basis of questionnaire material (printed in a supplement to *Zsch. f. Religionspsychol.*, 1929). The paper presents especially material on the reserve of adolescents in religion.—*A. Römer* (Leipzig).

2894. Schicker, F. Die Sprachkraft des Kindes. (Language ability in children.) *Werd. Zeitalter*, 1930, 9, 373-387.—(*Soc. Sci. Abst.* III: 6376).

2895. Schmeling, K. Perioden der Pubertät und der Poesie. (Puberty and poetry.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 17, 438-442.—Puberty brings about a revolutionary change in the mental life of the child, as well as in his physical life. The period is marked by poetic productivity. The phase usually persists into late adolescence. It is well-known that many great poets wrote their best works during this period.—*H. Marshall* (Stanford).

2896. Schoeps, H. Kinderlüge, ihre Motive und ihre Behandlung unter besonderer Berücksichtigung der Schullüge. (The lies of children, their motives and their treatment with special reference to school lies.) *Dsch. Blät. f. ers. Unterricht*, 1930, 57, 369-373.—*A. Römer* (Leipzig).

2897. Scott, G. D. The psychic value of music and color in infant and child nutrition. *Med. J. & Rec.*, 1931, 133, 161-165; 218-219; 266-269; 329-330.—"Music not only tends to stimulate the appetite juice and to foster an improved metabolism," but it acts "on organic function, stimulating muscle tonus and a stronger heart action." The researches of Feré and Pressey on the physiological and psychological effects of colors are cited, and the "warm" and "cold" colors are distinguished with respect to their metabolic influences. "Blue tends to produce a grave mood, violet a solemn one," and red is called an "independent color, giving the feeling of warmth when mixed with other colors." Yellow is "softly exciting," blue "brings a feeling of darkness," and gives a "kind of subtle contradiction between excitement and repose." Hints are supplied for the decoration of pediatric consultation rooms, largely on the basis of infant color preferences. Reference is made to the tests of Shinn and Martin regarding the emphatic effect of colors on children. There are sections on the nervous system, and the plea is made that "we should always make the color fit the child."—*R. C. Givler* (Tufts).

2898. Smith, M. E., Lecker, G., Dunlap, J. W., & Cureton, E. E. The effects of race, sex, and environment on the age at which children walk. *J. Genet. Psychol.*, 1930, 38, 489-498.—Data on the age of walking were gathered for 725 children of seven

races in the Hawaiian Islands. No significant racial differences were found; girls walk about two weeks earlier than boys; children in warmer climates walk earlier than do those of comparable groups in colder; children of higher intellectual and social levels walk earlier than those of lower.—*J. F. Dashiell* (North Carolina).

2899. Stoddard, G. D. Utilization of graphic and statistical methods in certain problems of child development. *J. Genet. Psychol.*, 1930, 38, 504-510.—There is a definite sphere of usefulness for statistics in the field of child development.—*J. F. Dashiell* (North Carolina).

2900. Tamm, A. *Ett sexualproblem, onanifrågan i psykoanalytisk belysning*. (A sex problem; onanism in the light of psychoanalysis.) Stockholm: Tildens Förlag, 1930. Pp. 118.—This book gives a general survey of the various views of onanism, the author's main point being that "onanism should be regarded as a normal transition stage in all human beings." Children should not be enlightened until around puberty.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

2901. Tauscher, E. Über die Korrelation zwischen Handgeschicklichkeit und Intelligenz. (The correlation between manual dexterity and intelligence.) *Neue psychol. Stud.*, 1930, 5, 197-227.—In young people of 11-14 years manual dexterity and intelligence have a very low correlation. However, the separate tests from the two types of performance exhibit increasing correlations in the course of these years of development. There is a glimmer here of structural foundations.—*O. Klemm* (Leipzig).

2902. Tumlitz, O. Die Bedeutung einer jugend-psychologischen Kasuistik. (The significance of a casuistry of adolescent psychology.) *Vjsch. f. Jugendk.*, 1931, 1, 56-61.—Adolescent psychology is necessary for (1) a thorough understanding of the course of development; (2) adequate educational and vocational guidance; (3) an understanding of the "typical" adolescent.—*R. H. Waters* (Arkansas).

2903. Tumlitz, O. Zwei feindliche Brüder. (Two unfriendly brothers.) *Vjsch. f. Jugendk.*, 1931, 1, 61-64.—The case of a brother who became jealous of his older brother due to the latter's mental and physical superiority and the consequent attitude of the parents.—*R. H. Waters* (Arkansas).

2904. Van Briessen, M. Die Entwicklung der Musikalität in den Reifejahren. (The development of musical ability in adolescence.) (*Manns päd. Mag.*, No. 1243.) Langensalza: Beyer, 1929. Pp. 127. M. 3.70.—Musical talent forms a many-sided complex which cannot be described adequately either by an investigation of parts of the ability or by any single test. One cannot get at the nature of musical ability, which rests upon a gift for the internally connected trinity of melody, harmony and rhythm, by a study of the elementary abilities of this innate organization complex limited to the acoustic-physiological side. A few older investigations of musical development extend only to the 14th year. The au-

thor considers especially the years of adolescence, since it is just within this period that a decided further development can be expected. The following series of tests aims to test every aspect of musical ability: (1) absolute and relative hearing; (2) perception of intervals; (3) chord, dissonance, consonance, cadence, major and minor differentiation, identifying and repeating the number of tones of a chord; (4) perception and memory of melody, recognition and observation of the variant in a known melody; (5) perception of harmony, recognition of errors in four-voiced short compositions; (6) rhythm: repeating a motive in different rhythms; (7) empathy and fantasy in hearing music. The chief results of the individual testing of 120 boys and girls from 12 to 19 years of age follow. The extent of development of musical ability is greater in boys than in girls. Because the main development sets in earlier in girls they surpass boys until the age of 16. The development of musical ability corresponds roughly with general mental development, and like it is strongly influenced by the process of maturing. Natural developmental tendencies are more important than external educational influences. A high degree of musical talent usually goes with easily expressed fantasy and empathy. The lively interest of adolescents in music and the fact that music is rooted in the entire personality make an education in attitude toward music necessary in higher schools.—*M. Van Briessen* (Graz).

2905. Vásquez Alvarez, S. Las insuficiencias psíquicas en los niños. (Mental defect in children.) *Rev. de fil.*, 1929, 15, 250-281.—(Soc. Sci. Abst. III: 6511).

2906. Walsh, M. E. The relation of nursery school training to the development of certain personality traits. *Child Development*, 1931, 2, 72-73.—"A group of 22 nursery school children tested for personality traits over a period of six months were found to have developed certain personality traits to a much greater degree than a group of 21 children without nursery school training. The superiority of the personality traits of the nursery school children over children who did not have systematic training, as shown by the statistical validity of the scores, was probably due to a great extent to the influence of the social force of a large group of children who had to adjust to each other constantly."—*W. McTeer* (Detroit City College).

2907. White, R. The space order reaction of young children. *Child Development*, 1931, 2, 75.—"Two tests (pointing at pictures and checking circles) devised by Schachne Isaacs for the study of the development of the space order reaction required in reading were given to 23 children in the Child Institute of the Johns Hopkins University. The ages ranged from two and one-half to five and one-half years." The results "indicate that the reading space order from left to right which is used by adults in responses to the situations of the test procedure is determined by training in reading."—*W. McTeer* (Detroit City College).

2908. White, R. Influence of suggestibility on responses in ink spot test. *Child Development*, 1931, 2, 76-79.—11 boys and 5 girls from the Child Institute of Johns Hopkins served as subjects. Their average age was 4:5, and average IQ was 114.5. Materials consisted of ink spot plates, numbers 1 to 10, from Whipple's series. In Series A the children named the spots without suggestive helps. In Series B the experimenter suggested a name. The "acceptance score" averaged 3.3. The child applied the same name to the spot in Series B that he had given it in Series A on an average of 2.5 times. With a revised procedure, 13 boys and 7 girls from the nursery school of the University of Minnesota served as subjects. Their average age was 3:11, and average IQ was 108.5. The same materials were used, but this time with an exposure frame. In Series A a name was suggested as the spot was shown. In Series B no suggestion was given. With these subjects and this technique the average "acceptance score" was 5.8. In Series B there were 41 cases where a child repeated the same name which he had given to a spot previously, and of these only 8 were names suggested by the experimenter. A correlation of -.40 was obtained between the receptivity score and IQ with this group. "This is in agreement with other investigations which find suggestibility correlated inversely with intelligence."—W. McTeer (Detroit City College).

2909. Wile, L. S., & Noetzel, E. A study of birth order and behavior. *J. Soc. Psychol.*, 1931, 2, 52-71.—A group of 500 successive admissions to the Children's Health Class of Mt. Sinai Hospital were classified as explosive, withdrawn, enuretic, or delinquent and their classification as oldest, middle, youngest, or only child in the family determined. No significant results were found to substantiate Adler's contention that family constellation is a dominant factor in child development. A similar examination of 355 adults admitted to the Colorado Psychopathic Hospital leads to the same conclusion.—E. B. Newman (Bryn Mawr).

2910. Wilson, F. T. Factors of repetition and of directed and undirected attention in the learning of bright and dull children. *J. Genet. Psychol.*, 1930, 38, 498-504.—Children were given a passage to read with the Gregg shorthand character for each word appearing above it. Some of these characters occurred more than once in the course of the reading and some were indicated with a pointer; but in neither case was any facilitation of learning produced. A more important factor was the relative difficulty of the shorthand characters per se.—J. F. Dashiell (North Carolina).

2911. Worcester, D. A. The schoolroom attitudes and achievements of only children. *J. Genet. Psychol.*, 1930, 38, 475-480.—Only children were found to be fairly uniformly superior to the non-only in eleven school grades and in all academic subjects and personal trait ratings. The evidence was taken from the report cards.—J. F. Dashiell (North Carolina). [See also abstracts 2645, 2649, 2657, 2694, 2740, 2777, 2810, 2980.]

EDUCATIONAL PSYCHOLOGY

2912. Allers, R. Sexualpsychologie als Voraussetzung einer Sexualpädagogik. (Sexual psychology as a basis for sexual pedagogy [conclusion].) *Viertl. wiss. Päd.*, 1930, 6, 321-355.—A. Römer (Leipzig).

2913. Bohan, J. E. Students' marks in college courses. Minneapolis: Univ. Minnesota Press, 1931. Pp. xiii + 133. \$1.50.—The author presents a survey of the literature and general considerations in the problem of students' marks. The study is presented on the basis of students' marks and intelligence ratings beginning with 1031 students in 1923-24. A series of distributions of marks is presented under the titles: variations of marks between colleges, between departments within colleges, and between the same units for different quarters; the distributions of marks and intelligence test scores; variation in the distributions of marks in certain freshman courses as related to intelligence; relation of course marks in one subject to course marks in other subjects and to intelligence; and certain implications for the use of objective examinations in the determination of marks based upon experimental procedure in courses in physiology and obstetrics. The results are to be interpreted only as "interesting phenomena" in light of the fact that "no official regulation or policy exists with regard to the use of marks." Interpretation is somewhat difficult in light of the varied use of certain temporary marks for incomplete work and the further confusion of certain "cancellation procedures." "When colleges are compared as to the total distributions of marks, differences occur that tend to persist over a period of time." This shows a tendency toward consistency of policy, although it may not be a conscious policy. A comparison among college groups is difficult in the light of continued selection for advanced and professional courses. It is further observed that the absence of a definite standard leads to certain leniencies in the marking of graduate students who are carrying courses concurrently with undergraduate students. "The departmental variation seems to be consistent over a period of time." "Variation of marks in courses is not affected by the intelligence level of the student group registered in any given course." The illustration of two attempts in the medical school by making a combination of "discursive and objective examinations" reveals that even "a careful attempt at the marking of students in a course is not sufficient to secure standardization of marks unless the general levels of the marks for the colleges are also considered in changing the scores on tests to definite course marks." Subsequent to these general suggestions seven specific recommendations are given involving the establishment of a basic group for entering classes and the rearrangement of this as an index "by which the general level of the marks should be determined for that class." It is urged that objective tests be devised which should be general and comprehensive enough to establish the validity of marks over a definite period

of time. The author concludes that "the difficulty involved in such a standardization of marking procedure need not stand in the way of a tentative statement of the definition of marks." "Only when an attempt is made to apply some system to a haphazard procedure can it be said that an institution which fosters science makes use of science in the serious matter of rating human achievement." Bibliography.—*R. A. Brotemarkle* (Pennsylvania).

2914. Brumbaugh, H. E. Reducing failures by a plan of alternative dismissal, holding failing pupils for additional instruction. *J. Educ. Res.*, 1931, 23, 240-245.—Experiment at the Norwin High School, Irwin, Pa. The plan of alternative dismissal decreases the size of the failing group.—*S. W. Fernberger* (Pennsylvania).

2915. Caldwell, O. W., Skinner, C. E., & Tietz, J. W. *Biological foundations of education*. Boston: Ginn, 1931. Pp. vii + 534. \$2.72.—The authors here have in mind something for adults interested in parent-teacher relations as well as for students of psychology, education, sociology, biology and hygiene. They hope the contents may contribute to a more purposeful development not only of the general philosophy of education but of an individual philosophy of living. Thirty chapters cover: orientation material; man's cellular, structural, glandular and nervous make-up; anatomical, physiological and psychological phylogeny and ontogeny; "ingoing roads of experience" (psychology of the senses); "outgoing roads of experience" (emotions, muscles, reflexes); "accessory growth factors" (vitamins, sunlight); defects and diseases of school children; work and fatigue. The treatment throughout is definite, concrete and practical. 116 figures include many anatomical photographs and diagrams. Each chapter carries a list of questions and problems, sets of true-false statements and completion exercises as well as a bibliography including abundant citations to experimental studies.—*L. M. Hatfield* (Canton, Ill.).

2916. Cederstrom, J. A. Retention of information gained in courses in college zoology. *J. Genet. Psychol.*, 1930, 38, 516-520.—After a year students maintained 6/10 to 8/10 of the gain made during a course in zoology as measured with information scales; women showed better retention than men; retention was slightly or not at all correlated with rating on college aptitude tests; amounts but not percentages of retention were proportionate to amounts of gain.—*J. F. Dashiell* (North Carolina).

2917. Church, V. A study of three hundred children committed to a city board of public welfare 1928-1929. *Soc. Sci. Monog.*, 1931, 1, 5-0.—This study was made in the District of Columbia. The result is the suggestion that more attention be paid to the child as a part of his home rather than as an individual, since shifting him from home to court, or to foster home, is likely to do damage to him or his parents' sense of responsibility toward him.—*E. B. Heim* (Provo, Utah).

2918. Dilley, F. B. Scholastic records of students failing a general intelligence test. *School & Soc.*, 1931, 33, 311-314.—Of those who failed during the years 1926-1929 the intelligence test required of entering students at Ohio State University, about 10% withdrew from college during the first semester, about 13% completed one semester, while about 80% did satisfactory university work. Hence it is questioned whether the test diagnoses sufficiently accurately to justify its use as the sole basis for excluding students from the University.—*H. L. Koch* (Chicago).

2919. Edmiston, R. W. A method of improving prediction. *School & Soc.*, 1931, 33, 411-414.—Correlations were obtained between marks in high-school science variously derived and marks in preceding similar courses, intelligence test scores, and pre-tests not only covering general science items but also permitting the use of texts as well as all the time desired by the students. The latter resulted in the highest coefficients of correlation (.80 to .97) when the science grades were based on extensive objective examinations. The lower coefficients obtained in the case of the other quantities the author believes to be due to inadequate examinations, to examinations in the grading of which the subjective element is conspicuous, to teaching aimed merely to prepare for tests, and to deliberately unfair or biased grading.—*H. L. Koch* (Chicago).

2920. Eyrich, M. *Klinischer Bericht über den 5. Kongress für Heilpädagogik in Köln*. (Clinical report of the 5th congress for educational therapy in Cologne.) *Zentbl. f. Psychotherap.*, 1931, 4, 83-85.—The opening paper was by Isserlin on the present situation in aphasia investigation. Schizophrenia in childhood was discussed; its occurrence was considered by everyone to be rare and its prognosis favorable. The constitutional biology group presented papers on feeble-mindedness in relation to the disturbance of various physiological functions. Its association with changes in the structure of the capillaries and endocrine glands was stressed by W. Jänsch and Wittneben. Moses claimed circulatory defect to be the essential cause of the sexual pathology of subnormals. Papers were presented on youthful murderers, spiritual education, the care of the psychopathic child, and the characteristics of the easily brought up child. Gött claimed feeble-mindedness is more often due to birth trauma and other injuries and encephalitis than is usually believed. Benjamin pointed to protection phases in the 2- and 3-year-old as favorable therapeutic points of attack. Löwenstein reported the effect of environment on 80 pairs of twins, 40 of which were identical.—*M. A. M. Lee* (Chicago).

2921. Foran, T. G., & Rock, R. T., Jr. The reliability of some silent reading tests. *Cath. Univ. Amer. Educ. Res. Bull.*, 1930, 5, No. 6. Pp. 23.—Reports on the studies of reliability of 16 silent reading tests.—*M. B. Jensen* (Michigan Central State Teachers College).

2922. Foran, T. G. The meaning and measurement of validity. *Cath. Univ. Amer., Educ. Res. Bull.*, 1930, 5, No. 7. Pp. 27.—A discussion of methods employed by various investigators in describing validity.—*M. B. Jensen* (Michigan Central State Teachers College).
2923. Foran, T. G., & Rock, R. T., Jr. A comparison of studies on the relative difficulty of the number combinations. *Cath. Univ. Amer., Educ. Res. Bull.*, 1930, 5, No. 8. Pp. 26.—*M. B. Jensen* (Michigan Central State Teachers College).
2924. Gallagher, E. J. Vocational guidance and success. Milwaukee: Bruce, 1931. Pp. 201. \$1.20.—A book addressed to the youthful reader. The first five chapters are introductory, covering the importance of choice of a vocation, good health, sound education in high school, moral habits and character and emotional control. One should investigate many possible occupations, that is, note what the workers are doing. Illustrations are given for department store, mill, newspaper, carpenter, salesman, machinist. Self-analysis should be made, including such things as school record, industrial experience, special abilities, occupational preferences. One should also list any personal handicaps which he should attempt to overcome. The essentials of a desirable occupation involve considerations like health, suitability, respectability, permanence, remuneration, opportunity for advancement. A list of leading occupations follows under fifteen classifications, such as transportation, manufacturing, commerce, art, publication. A bibliography on different occupations is attached (including Katherine Blackford). Preparation for the vocation actually chosen should involve study at some institution or at home. The actual finding of the position chosen may be pursued through personal solicitation, through competitive examination, getting on a waiting list, or "keeping at it." There is, finally, a discussion of "climbing upward" with some mottoes and advice of great men—Edison et al. Appendix for parents. Photographs of numerous occupational situations.—*H. E. Burtt* (Ohio State).
2925. Gottschaldt, K. Psychologischer Bericht über den 5. Kongress für Heilpädagogik. (Psychological report on the 5th congress for educational therapy.) *Zentbl. f. Psychotherap.*, 1931, 4, 85-88.—Only a very few psychologists took part. Fundamental problems in general psychology were often involved in other investigations, but were overlooked or uncritically pushed aside. The results of a questionnaire on partial deafness were presented by Giese with many reservations. The concept of mental "difficulty" was attacked by Eliasberg. Gottschaldt deprecated the exclusively mechanical use of tests in investigations concerning the intelligence of the feeble-minded and psychopaths. The psychology of the deaf and dumb was outlined by Frohn. Other papers dealt with speech education of the deaf, and allied problems. A. Fischer attacked the problem of youth in relation to law, pointing out youth's tendency to formulate its own laws and oppose the objective social norms. The dependence upon self-originated feelings is especially great in the abnormal. Problems which arise from beginning business were discussed by Brachen. Schoder raised the question why some children are more easily brought up than others. Papers were given on the accessory school in relation to court offenses and the validity of the testimony of children was questioned.—*M. A. M. Lee* (Chicago).
2926. Hansen, W. Die Gefahren sexueller Verirrungen in der Pubertätszeit und ihre prophylaktische Behandlung. (The dangers of sexual delinquency during puberty and their prophylactic treatment.) *Vjsch. f. wiss. Päd.*, 1930, 6, 355-414.—*A. Römer* (Leipzig).
2927. Hatcher, O. L., Kitson, H. D., Davis, A. S., & Brewer, J. M. Vocational guidance. *School & Soc.*, 1931, 33, 441-442.—The resolutions adopted by the National Vocational Guidance Association at its twentieth annual convention.—*H. L. Koch* (Chicago).
2928. Holtorf, H. Das Problem der Überbürdung in jugendpsychologischer Beleuchtung. (The problem of over-burdening in the light of the psychology of adolescence.) *Zsch. f. angew. Psychol.*, 38, 1-119.—This study is an attempt to measure the effectiveness of the German school reform of 1924, which aimed to eliminate the traditional over-work of the gymnasium student. Sponsored in his investigation by the Prussian *Kultusminister*, the author secured 730 detailed responses from first-semester students at the universities of Göttingen, Marburg, Giessen, and Königsberg. The extensive material thus obtained was classified and appraised in accordance with the personnel data secured at the same time. Most of the report is devoted to excerpts of student opinion, which range from extreme approval to utter condemnation of the existing school system. It appears that 19% of these freshmen expressed themselves as definitely over-worked, by which was meant that physical exercise, social recreation, or independent intellectual enterprise would have been impossible had the full demands of the teachers been met. The better-endowed students felt themselves more over-burdened than their comrades of lesser gifts. The increasing order for percentages of over-work for each type of secondary school was as follows: *Gymnasium, Realgymnasium, Oberrealschule, Oberlyzeum, Reformrealgymnasium, Aufbauschule*. The old-type humanistic gymnasium apparently produces the least strain and the modern *Aufbauschule* (for selected talents) the most. The author believes that when more than four-fifths of the pupils find no evidence of over-burdening the new reformed system must be effective in preserving the proper balance between work and play during the adolescent years.—*G. W. Hartmann* (Berlin).
2929. Jones, L. Class attendance and college marks. *School & Soc.*, 1931, 33, 444-446.—The study concerns the attendance during one semester of 869 freshmen and sophomore men at the State

University of Iowa. The average number of absences per individual for the semester was 8. Grades and regularity of attendance were positively correlated, while percentile rank on the University qualifying examination showed no consistent relationship to the latter. Fraternity men were absent from their classes more frequently than were non-fraternity.—*H. L. Koch* (Chicago).

2930. Kefauver, G. N., & Bullard, C. Student activities in junior colleges. *Teach. Coll. Rec.*, 1931, 32, 445-456.—A discussion based on an investigation of student activities in 104 junior colleges located in all sections of the country, of all sizes, and both public and private.—*J. M. Stalnaker* (Purdue).

2931. Knoblauch, E. Zur Psychologie der studierenden Frau. Eine Untersuchung über die Einstellung zum Studium und zur späteren Berufstätigkeit bei Studentinnen. Schriften zur Psychologie der Berufseignung und des Wirtschaftslebens. (The psychology of the woman engaged in study. An investigation of the attitude of women students to study and to later occupational activity. Studies in the psychology of occupational aptitude and industrial life.) Leipzig: Barth, 1930. Pp. 88. M. 3.00.—In the first part of this work, which is based on the questioning of approximately 300 women students, three typical forms of attitude toward previous study are described and the different developments are outlined through which these attitudes pass in the concrete experience of the students with study. The second part is devoted to the question on what grounds the students wish to engage primarily in one occupation and from this point of view treats the motive of their choice of occupation and their attitude toward marriage. In conclusion the intra-individual relations between the attitude to study and to later occupational activity are discussed comprehensively. The study does not aim to present an exhaustive exposition of the critical problem, but to give some typical forms of attitude as such. The discussions are illustrated and supplemented by means of citations from the replies of students. An appendix presents in addition some typical cases from the material.—*E. Knoblauch* (Bonn).

2932. Kurtz, A. K. A new type of motivation chart. *J. Eduo. Res.*, 1931, 23, 238-240.—A type of chart is suggested for recording the accomplishment of activities against a date base.—*S. W. Fernberger* (Pennsylvania).

2933. Laird, D. A. Intellectual pioneering. *J. Higher Educ.*, 1931, 2, 81-86.—The author reports the development of creative work, original investigation or intellectual pioneering in a laboratory course in psychology. During the first year course the student, after some demonstrations, was required to take a large measure of responsibility for the preparation of the work and presentation of same during the second term. The selection takes place at the end of the first course in the sophomore year. Students, during junior year, are required to do something in the way of specific work, cooperating to a certain degree with the advanced students in the

senior year who are carrying on specific research. The experiment called for weekly meetings of the laboratory workers and a great deal of guidance in the matter of general reading, selection of problems and coordination of work. The experiment required one instructor for eight seniors or for sixteen juniors. The author maintains that no student should be graduated "unless he has done some original work which has been published or accepted for publication in a recognized journal in the field."—*R. A. Brotemarkle* (Pennsylvania).

2934. Lunk, G. Autorität und Freiheit in der Erziehung. (Authority and freedom in education.) *Dtsch. Schule*, 1930, 10, 584-591.—*A. Römer* (Leipzig).

2935. McAndrew, W. Training for parenthood. *School & Soc.*, 1931, 33, 390-393.—*H. L. Koch* (Chicago).

2936. McLester, A. The development of character traits in young children. New York: Scribner's, 1931. Pp. xvi + 126. \$1.25.—This book reports verbatim classroom discussions among children from six to ten years old, ostensibly spontaneous but actually planned and directed by the teacher for the purpose of establishing habits of truthfulness, honesty, friendliness, etc. Emphasis is placed upon the fact that every discussion had its starting point in an incident or situation actually occurring among the children. The aim was to bring them to see the desirability of certain behavior in such a situation. So far as possible the children were left to point the moral, the teacher expressing an opinion only when asked, or when the group seemed at a loss. Opportunity was given whenever possible for practicing the desired virtue, since behavior can become habitual only through practice. Devices such as "achievement cards" and a "reliable list" were also used. The book contains a short outline of other plans for character training, and an inventory of desirable traits which may be suggestive to teachers.—*M. P. Montgomery* (Faribault, Minn.).

2937. Nass, G. Über Konstanz und Labilität des Begabungsschwerpunktes. (Regarding the constancy and lability of aptitudes.) *Psychotechn. Zsch.*, 1930, 5, 134-137.—Those practicing vocational guidance frequently fail to recognize that vocational aptitudes are not the same in all age levels. Nass insists that vocational aptitude is not something constant which may be located, measured, and labeled at any given period of an individual's life, and which, once discovered, will remain unaltered; but that aptitude and interest will change frequently during an individual's life. For example the early vocational interest of a pre-adolescent is very seldom a lasting one, and should therefore not be taken seriously. During adolescence, especially the later period, an individual undergoes many emotional changes and adjustments. Along with these and many physiological changes, one may frequently notice decided appearances of specific aptitude tendencies, which, however, often disappear when

the person is entering adult life. As an example of this, the author mentions temporary artistic talents such as for writing, painting or music. Special mention is made of the phenomenon of eidetic imagery and its significance in adolescent life. Only with the approach of maturity does one reach stability in aptitude tendencies. The erroneous assumption that vocational aptitude is constant through a person's life has led people who are engaged in vocational guidance to try to find a particular vocational aptitude and interest too early.—*C. Burri* (Chicago).

2938. Odell, C. W. Predicting the scholastic success of college students. *Univ. Illinois Bull.*, 1930, 28, No. 5. Bull. No. 52.—A study based on high school students in Illinois in 1924 and the continuation of students who entered various colleges in the state from this state-wide group. The prediction of college marks from data available at entrance is based upon the simple correlations between college marks in fifty-five subjects and high school marks and intelligence scores, with coefficients ranging from .20 to .50. Students' vocational choice and fathers' occupations have little or no significance. The prediction of marks in the upper three years of college as based on the simple and multiple correlations of high school and freshman work gave coefficients which "extended only slightly higher." The prediction of persistence in college appeared to show a decided relation with students' intelligence test scores and high school averages. It was concluded that there is a definite relationship between these factors, which at least raises the selection of students above the guessing point so that the "guess element can be reduced to about one-half."—*R. A. Brotemarkle* (Pennsylvania).

2939. Odiorne, H. W. The library as a social agency. *Soc. Sci. Monog.*, 1931, 1, 34-41.—Two districts in Washington, D. C., were studied. They were similar except that one possessed a branch library and the other did not. 160 boys were taken in each district. More boys in the library district held cards for a library, but all the boys holding cards used them. None of these boys were delinquents.—*E. B. Heim* (Provo, Utah).

2940. Osburn, W. J., & Rohan, B. J. Enriching the curriculum for gifted children. A book of guidance for educational administrators and classroom teachers. New York: Macmillan, 1931. Pp. xiv + 408. \$2.00.—This volume outlines the plan carried on for five years in the schools of Appleton, Wisconsin, under the joint direction of the authors. Part I deals with the principles which should underlie curriculum enrichment for the gifted; Part II presents the materials and methods which were employed at Appleton. The activities were centered in radio clubs, newspaper clubs, forestry clubs, nurses' clubs, mechanics' clubs, a salesmanship club, a teachers' club, and an arts and crafts club. Abundant reference material for each of the clubs is cited. It is believed that the Appleton plan can be put into operation successfully in any school.—*L. A. Averill* (Worcester State Normal School).

2941. Payne, E. G. An analysis of instruction for habits and practices in health and accident prevention. Bloomington, Ill.: Pub. School Publ. Co., 1921. Pp. 8.—A reprint of a study originally published in the author's *Education In Health*, published by Lyons and Carnahan. It comprises a check-list for application in grades 4 to 8.—*L. A. Averill* (Worcester State Normal School).

2942. Peters, C. C., & Martz, H. B. Types of examinations. *School & Soc.*, 1931, 33, 336-338.—The study concerns the validity for a number of elementary and high school subjects of the following measures of accomplishment: true-false examinations containing 20 statements, multiple-choice exercises with 10 four-alternative items, completion tests with 10 items, and essay-discussion quizzes with 1 or 2 questions. The criterion against which the returns from the various examinations were checked was the final course grade, which was based upon the results of all of the objective tests, a series of standardized achievement tests, and teachers' estimates of classroom performance. It is concluded (1) that the different examinations do not vary greatly in their validity, (2) that the true-false test is not so well suited to elementary pupils as the others, while the completion exercises seem to yield the most valid results, and (3) that in the case of the secondary school pupils the essay type of examination ranks highest, the multiple-choice being a close second.—*H. L. Koch* (Chicago).

2943. Potthoff, E. F. Predicting the ultimate failure of college students on the basis of their first quarter's records. *School & Soc.*, 1931, 33, 203-204.—For the group of 482 students entering the University of Chicago in 1924, the author computed the correlations between the average marks earned during the first two years at college and intelligence test scores as well as average grade made not only in high school but also during the first quarter of work at the University. The latter seemed to be the best index of later scholastic performance ($r = .810 \pm .011$), the other indexes when combined with it adding little to its predictive value. The author believes that most students whose scholarship during their first three months in college is clearly unsatisfactory (D + or less) might profitably be dismissed immediately thereafter.—*H. L. Koch* (Chicago).

2944. Pound, O. Extra-curricular activities of high school girls. New York: Barnes, 1931. Pp. viii + 97. \$1.00.—These activities are considered under the headings of social relationships, promotion of physical fitness, use of leisure and vocation.—*E. B. Heim* (Provo, Utah).

2945. Preseley, S. L., & Conkling, F. R. Student's guide for correctness in written work. Bloomington, Ill.: Pub. School Publ. Co., 1924, 10.—An epitome of all the important rules for writing correct English, with illustrations of correct usage. The rules are divided into the following classifications: capitalization, punctuation, grammar, and sentence

structure. Teachers' manual.—*L. A. Averill* (Worcester State Normal School).

2946. *Raguse, F. W.* Qualitative and quantitative achievements in first grade reading. *Teach. Coll. Rec.*, 1931, 32, 424-436.—A mature group of 41 (median IQ 101) and an immature group of 37 (median IQ 88) first grade children were taught and encouraged to read by the procedures described in Gates' *New Methods in Primary Reading*. During the school year the two groups read on the average (median) 22 and 15 books per child. One child read 38. Objective tests administered at the end of April showed both groups well in advance of the first grade norms. These norms are considered high. In a foreword Gates says, "The results obtained are among the most remarkable that I have ever seen."—*J. M. Stalnaker* (Purdue).

2947. *Bangren, P. V.* An arraignment of productivity. *J. Higher Educ.*, 1931, 2, 87-92.—The scholastic productivity of the 137 teachers' training colleges of this country, judged by a study of the authorship of articles presented in leading journals during the year 1928, indicates that colleges "are woefully deficient in making contributions to a solution of present-day educational and scholastic problems." The author makes several suggestions which might direct teachers' colleges toward the realization of standards for which he has argued previously. These have to do with scholarly attitude, productive research, teaching-load and experimental schools.—*R. A. Brottemarkle* (Pennsylvania).

2948. *Schock, A. C.* The selectivity of the Philadelphia Central High School (1846-1865) and the Hartford Public High School (1848-1865). *J. Educ. Res.*, 1931, 23, 232-237.—Study of the occupations of parents and economic status of high school students. The results show that for the 20 years under consideration there was little variation in the proportional representation of the various occupational groups in the high-school population.—*S. W. Fernberger* (Pennsylvania).

2949. *Sollmann, T.* Aptitude test for medical students. *School & Soc.*, 1931, 33, 196.—The Association of American Medical Colleges endorses the test prepared by F. A. Moss.—*H. L. Koch* (Chicago).

2950. *Sterzinger, O.* Untersuchungen über die Aufnahmeprüfung in die Mittelschulen (höheren Schulen). (Experiments with entrance examinations in intermediate schools (higher schools).) *Vjsch. f. Jugendk.*, 1931, 1, 24-37.—A series of tests is described consisting of: (1) the Bourdon-Whipple simple cancellation test, designed to test attention for concrete material; (2) a more complex cancellation test for measuring attention for abstract material; (3) rote memory with nonsense material; (4) logical memory with paired associates; (5) a sentence building test. These tests were applied to 16 classes drawn from the schools in Wien, Graz, and a few small villages. Rank coefficients of correlation with school marks were obtained as follows: simple can-

cellation, .27; complex cancellation, .37; rote memory, .21; logical memory, for word pairs, .34; for pairs of sentences, .42; and for sentence building, .42. Slightly higher coefficients are obtained by the contingency method.—*R. H. Waters* (Arkansas).

2951. *Symonds, P. M.* On what basis should a high school boy choose his curriculum? *Teach. Coll. Rec.*, 1931, 32, 437-444.—A discussion and analysis of factors to be considered in guidance. The use of interest questionnaires, and of ability, prognosis, and aptitude tests is advocated.—*J. M. Stalnaker* (Purdue).

2952. *Symonds, P. M.* Homogeneous grouping. *Teach. Coll. Rec.*, 1931, 32, 501-517.—A critical review of four documents by J. R. McGaughy, Alice V. Keliher, M. Y. Burr and Principal Reynolds of the Horace Mann School, on homogeneous grouping.—*J. M. Stalnaker* (Purdue).

2953. *Thorndike, E. L.* A teacher's word book of the twenty thousand words found most frequently and widely in general reading for children and young people. New York: Teachers College (Columbia University), 1931. Pp. vii + 182. \$4.00.—An extension of the original 10,000-word volume, based on additional general counts by the author, including about 5,000,000 words from over 200 sources, and general and special counts by other investigators. Appendix A gives the sources and methods of determination, and Appendix B discusses the reliability of placement.—*R. R. Willoughby* (Clark).

2954. *Torgerson, T. L.* Public school achievement tests, Form 4. Bloomington, Ill.: Pub. School Publ. Co., 1931.—Battery A, for grades 3 to 8, contains tests in reading, arithmetic computation, language usage and spelling. Battery B, for grades 6 to 8, contains tests in grammar, history, geography.—*M. B. Jensen* (Michigan Central State Teachers College).

2955. *Trusler, V. T., & Brown, E. J.* Methods of entrance employed by four-year teachers' colleges of the United States. *School & Soc.*, 1931, 33, 379-382.—*H. L. Koch* (Chicago).

2956. *Uhrbrock, R. S.* The freshman's use of time. *J. Higher Educ.*, 1931, 2, 137-143.—245 freshmen in the orientation course at Cornell University in November, 1929, filled up a set of time records which are discussed in the article. Student time was divided under twenty-six classifications. The author states that he feels that the reports are sufficiently accurate; and contrasts the average amount of time of the eighteen high scholarship men, general freshman group and eighteen low scholarship men. The general distribution falls into the threefold division of eight hours for labor, eight hours for play and eight hours for sleep. The eighteen high scholarship men tend to spend more time in actual application to their classroom and academic work, giving slightly less time to the social activities. The low scholarship man not only gives a bit more time to social activities but also takes time from his academic work and

sleeping hours in order to double the number of hours for remunerative employment. "The total pattern, or rhythm, of activities may be far more important than any single factor that could be isolated for study." The author admits the criticism that there is no recognition of the relative efficiency of the individuals or members of the groups contrasted and feels that the emphasis should be placed on instructing the student how to use his time "more efficiently."—R. A. Brotemarkle (Pennsylvania).

2957. Washburne, C. Mental age and the arithmetic curriculum: a summary of the seven grade placement investigations to date. *J. Educ. Res.*, 1931, 23, 210-231.—The grade at which a topic is usually taught is statistically determined. Children of this grade are tested for prerequisite knowledge and for general intelligence; the children are then submitted to a teaching period of six weeks and are given an achievement test, and finally a retention test is given six weeks later. The results indicate that "there is a point in a child's mental growth before which it is not effective to teach a given process in arithmetic and after which that process can be taught reasonably effectively." The committee submits a scale of standards for minimal mental age and optimal age for a number of topics ranging from addition of sums of 10 and under to mixed numbers involving borrowing.—S. W. Fernberger (Pennsylvania).

2958. Wheat, H. G. *The psychology of the elementary school*. Boston: Silver, Burdett, 1931. Pp. 440.—This volume presents a discussion of the psychology of language, arithmetic, reading, handwriting, spelling, social science, history, and geography, devoting a long chapter to each; this comprises the bulk of the book. In addition, there is a chapter on learning and teaching, one on the psychology of the school program, and a final one on the psychology of the pupil's behavior. The volume is designed to encourage teachers to study the subjects they teach in the hope that they may be helped to understand that the interests of the child are the interests of the society in which he lives, that the very nature of most curricular subjects is such as to generate their own motives in the learner if wisely handled, and that the point of view of the child needs to be kept constantly in the foreground.—L. A. Averill (Worcester State Normal School).

2959. Whitney, F. L. State legislative provision for character education. *School & Soc.*, 1931, 33, 306.—H. L. Koch (Chicago).

2960. Ziegler, L. H. Learning and forgetting. *J. Higher Educ.*, 1931, 2, 144-146.—The study presents evidence on the retention of learned increments of the training given to 58 seniors in the nurses' training school in a course on the anatomy, physiology and pathology of the nervous system. The repeated examinations showed continued loss of knowledge known at the time of the first examination. The author feels that inadequate consideration is given to individual problems, both of ability and personal

capacity to adjust oneself to knowledge and its use.—R. A. Brotemarkle (Pennsylvania).

[See also abstracts 2810, 2878, 2911, 2973.]

BIOMETRY AND STATISTICS

2961. [Anon.] On the remaining tables for determining the volumes of a bivariate normal surface. *Biometrika*, 1930, 22, 1-35.—(Soc. Sci. Abst. III: 6556).

2962. Benschoter, J., & Klemm, O. Korrelations-theoretisches zur Ganzheit. (Theoretical correlation studies in regard to totality.) *Neue psychol. Stud.*, 1930, 5, 189-196.—The validity of aptitude testing in the textile industry is calculated. The correlation of the mean ranks in the separate aptitude tests with practical work is higher than the mean of the correlations of each test with practical work. The mathematical relation between the two correlations is discussed. The higher coefficient of correlation expresses the superiority of the qualities of the whole over those of the parts.—O. Klemm (Leipzig).

2963. Ezekiel, M. *Methods of correlation analysis*. New York: Wiley, 1930. Pp. xiv + 427. \$4.50.—A textbook covering variation and co-variation. Treatment of the latter is particularly full, with illustrations drawn largely from agricultural but partly from other fields, including psychology. There is an orienting chapter on the place of statistics in research. Appendices give methods of computation, technical notes, and charts for interpretation or adjustment of correlation coefficients. There are a glossary, a list of important equations, and a bibliography of 16 items. The treatment throughout is elementary.—R. R. Willoughby (Clark).

2964. Fritz, M. F. Experimental evidence in support of Professor Thurstone's criticism of the phi-gamma hypothesis. *J. Gen. Psychol.*, 1930, 4, 346-352.—Evidence is presented from two sources: (1) an experiment in discrimination of circles by white rats, and (2) an investigation of short time-intervals reported by Woodrow. "Thurstone has demonstrated that, theoretically, a phi-gamma curve cannot be made to fit a psychometric curve. A psychometric curve is positively skewed, while a phi-gamma curve is symmetrical."—H. Cason (Wisconsin).

2965. Harris, J. A., & Borghild, G. Illustration of the application of a coefficient measuring correlation. *J. Amer. Statist. Assn.*, 1930, 25, 305-307.—(Soc. Sci. Abst. III: 4897).

2966. Kondo, T. A theory of the sampling distribution of standard deviations. *Biometrika*, 1930, 22, 36-64.—(Soc. Sci. Abst. III: 6557).

2967. Lincoln, E. A. The reliability of anthropometric measurements. *J. Genet. Psychol.*, 1930, 38, 445-450.—Studies on the consistency of results in repeated measurements show that physical measurements are highly unreliable, even when performed by skilled operators using the best of instruments.—J. F. Dashiell (North Carolina).

2968. Merrell, M. The relation of individual growth to average growth. *Human Biol.*, 1931, 3, 37-70.—The relation of the curve of growth from the averages of many measurements and the average curve of the separate curves for each individual is analyzed. For the parabola the two curves are identical but for the logistic curve a series of correction terms are necessary. When the individual variability is great the curve from the averages may show undulations not in the individual curves and different skewness. The method for making the corrections and evaluating them is given in detail.—O. W. Richards (Yale).

2969. Pearson, E. S. A further development of tests for normality. *Biometrika*, 1930, 22, 239-249.—(Soc. Sci. Abst. III: 6558).

2970. Pearson, K., Harris, J. A., Treloar, A. E., & Wilder, M. On the theory of contingency. *J. Amer. Statist. Assn.*, 1930, 25, 320-327.—(Soc. Sci. Abst. III: 4898).

2971. Valentine, W. L. A study of learning curves: II. The relationship between the hyperbola and the arc cotangent function. *J. Gen. Psychol.*, 1930, 4, 359-362.—After a mathematical treatment of the hyperbola as used by Thurstone, the growth curve of Ettlinger, and Meyer's arc cotangent function, the conclusion was reached that for all positive values of x (measure of the amount of practice) beyond some point slightly above zero, the arc cotangent function may be made to approximate the hyperbola more closely than either curve will approximate the learning scores.—H. Cason (Wisconsin).

[See also abstract 2899.]

MENTAL TESTS

2972. Conrad, H. S. The measurement of adult intelligence and the requisites of a general intelligence test. *J. Soc. Psychol.*, 1931, 2, 72-86.—Attention is called to the difficulties present in obtaining valid measurements of adult intelligence. A list of 24 desirable characteristics for a general test, based upon an examination of the literature, is given. It is proposed to use these criteria in evaluating tests to be presented elsewhere by the author.—E. B. Newman (Bryn Mawr).

2973. De Sanctis, S. The uses of the cinema in the education of children and youth. *Int. rev. educ. cinemat.*, 1930, 2, 957-976.—Three years ago the author tried to think out experiments capable of being exhibited by the cinematograph for the testing of general intelligence and technical intelligence in children and adolescents who were feeble-minded or of unbalanced character. These were to serve the purpose of scholastic selection. In a corrected form the tests are now published. Films are suggested (1) for estimating the general intelligence of boys of 7 years so as to measure any mental deficiency; (2) for instruction in the technique of the ascertainment of working ability; (3) for teaching school

pupils, selected for stammerers, lispers, and the totally deaf.—(Soc. Sci. Abst. III: 6456).

2974. Paterson, H. F. Organic inferiority and the inferiority attitude. *J. Soc. Psychol.*, 1931, 2, 87-101.—The ratings of 1229 Minnesota students on the Heidbreder inferiority attitude rating scale were correlated with the results of the routine physical examination given all students upon entrance to the University. Differences between the groups possessing each of a number of defects and the remainder in each case of the entire population, and differences between these same groups and the group possessing no defect were all found to be in the expected direction, namely, defects correlated with the inferiority attitude. More significant differences were found for women than for men, and more for women's self-ratings of physical defects than for their objective test ratings. Coefficients of correlation of .16 for men and of .20 to .30 for women were obtained when the total number of defects recorded per person was compared with the I-A rating.—E. B. Newman (Bryn Mawr).

2975. Jasper, H. H. Is perseveration a functional unit participating in all behavior processes? *J. Soc. Psychol.*, 1931, 2, 28-51.—The hypothesis of Spearman and other workers of a general trait of perseveration was tested by the application of a battery of sixteen tests to 78 subjects. The individual measures were each checked for reliability, yet the intercorrelations between them were not sufficiently large to be of any significance except in the case of the narrow group of motor tests. A critical examination of the results of other investigators leads to a similar conclusion. Correlations of scores for depression-elation and extroversion-introversion with each of the perseverative measures failed to reveal any significant relationships. It is concluded that no functional unity can be shown on the basis of the present results and that tests must be developed which are more specific, giving results less masked by other factors, before an absolute answer can be given. An excellent summary of measures used by other investigators is included.—E. B. Newman (Bryn Mawr).

2976. Lincoln, E. A., & Shields, F. J. An age scale for the measurement of moral judgments. *J. Educ. Res.*, 1931, 23, 193-197.—The scale consists of 8 groups of tests for the even-numbered years from 6 to 20. Illustrations are given from ages 8 and 18 years. It is scored "in much the same manner as the Stanford-Binet" and the result is an age score called the age of responsibility. Preliminary work with the scale on more than 1,300 subjects indicates that there is a gradual growth of moral judgment from childhood to maturity, which "in this field, occurs at an age not yet determined, but most certainly well over 16 on the average." Reliability measures are given.—S. W. Fernberger (Pennsylvania).

2977. Meredith, M. Intelligence tests and questionnaires, vintage of 1860. *Amer. Speech*, 1930, 6, 135-137.—(Soc. Sci. Abst. III: 6548).

2978. Merry, R. V. Department of special studies: Adapting the Seashore musical talent tests for use with blind pupils. *Teach. Forum (Blind)*, 1931, 3, 15-19.—The author describes the six Seashore Musical Talent Tests, devised by C. E. Seashore of the University of Iowa, and points out that the most difficult problem in adapting these tests for use with blind children is to develop a satisfactory method of recording responses. The group method usually employed with the seeing is not feasible for the blind. Satisfactory results are obtained by having each subject name the response aloud while the experimenter records it. Tables are given showing the individual percentile ranks made by 30 totally blind high school boys and girls and the percentage of 44 blind subjects who ranked from 75 to 100, between 50 and 75, and below 50 on each of the six Seashore tests. These tables show that although the majority of the blind pupils made superior ranks in the six tests, the performances of a significant percentage were inferior. The author gives eleven practical suggestions for using these tests with blind pupils.—*S. D. Robbins* (Boston).

2979. Nass, G. Über das Phänomen technischer Begabung und den Sinn ihrer psychologischen Feststellung. (The phenomenon of technical talent and the meaning of its psychological determination.) *Jug. u. Beruf*, 1930, 12, 551-556.—A. Römer (Leipzig).

2980. Sweet, L. The persistence of certain personal attitudes in younger adolescent boys. *J. Educ.*

Res., 1931, 23, 245-249.—A self-administering paper and pencil test devised by the author purports to measure seven such categories as criticism of self, feeling of difference from the average boy, deviation from the accepted idea of the right and social insight. The test requires the subject to make 780 decisions at the rate of about one in every two seconds. The test was applied to 114 boys between the ages of 12 and 14 from a junior high school. The results are compared with four other groups of similar age. The test was given twice, with a two-week interval. The results show a very high persistence of reactions over this interval. "The investigation yielded correlations which show that we have here an instrument which is reliable as a group test in the field of character measurement."—*S. W. Fernberger* (Pennsylvania).

2981. Washburne, J. F. Definitions in character measurement. *J. Soc. Psychol.*, 1931, 2, 114-119.—The current subjectivity of the character traits which are being measured is criticized. It is held that, as with intelligence, a criterion of good character can be formulated. The three present criteria of "integration of personality," "morality" and "strength" are therefore fused into the single statement that "character traits may be evaluated by the contribution they make to the economy of happiness." The use of the term "welfare" in place of happiness is criticized.—*E. B. Newman* (Bryn Mawr).

[See also abstracts 2708, 2750, 2839, 2901.]

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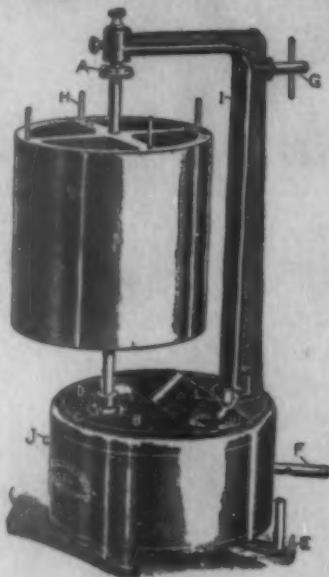
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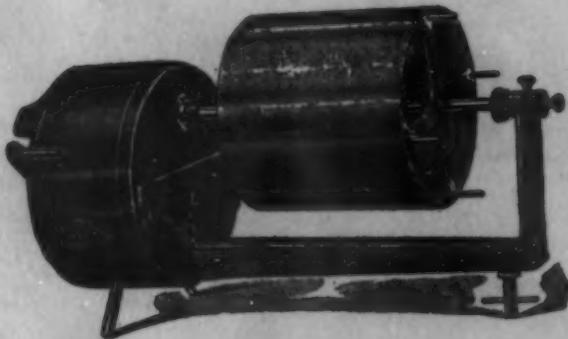
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